

## WHAT IS CLAIMED IS:

1. A method comprising:
  - displaying one or more processing relationship object representations on a  
5 display screen in data communication with a Financial Service Organization  
(FSO) computer system comprising a database;
  - selecting one or more processing relationship object representations from  
the displayed processing relationship object representations;
  - preparing a processing relationship definition for each of the selected one  
10 or more processing relationship object representations; and
  - storing each processing relationship definition in the database.
2. The method of claim 1, wherein each processing relationship definition stored in  
the database is configured for use in preparing a processing relationship value  
15 from an FSO transaction-related data in the FSO computer system.
3. The method of claim 2, wherein the processing relationship value is configured  
for use in identifying an FSO business entity as an owner of the FSO transaction-  
related data.  
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4. The method of claim 3, wherein the FSO business entity is a company or a  
business unit or a bank branch office or a regional bank or a credit card line or an  
issuer or an acquirer.
- 25 5. The method of claim 1, wherein the selecting one or more processing relationship  
object representations is performed by a user of the FSO computer system.
6. The method of claim 1, wherein the selecting one or more processing relationship  
object representations is programmable or executable by an expert system.

7. The method of claim 1, wherein the storing the processing relationship definition in the database comprises transferring the processing relationship definition to a report record definition stored in the database.
- 5 8. The method of claim 1, wherein the preparing the processing relationship definition comprises creating a highest level processing relationship object in a processing relationship structure, wherein the highest level processing relationship object represents an FSO.
- 10 9. The method of claim 8, wherein the processing relationship structure is expanded by inserting one or more processing relationship objects as descendants of the highest level processing relationship object.
- 15 10. The method of claim 8, wherein the processing relationship structure is edited by inserting or deleting one or more processing relationship objects, wherein each of the one or more processing relationship objects are descendants of the highest level processing relationship object.
- 20 11. The method of claim 1, wherein the displaying one or more processing relationship object representations on a display screen comprises displaying values associated with a sequence number and a level number.
- 25 12. The method of claim 11, wherein the level number identifies a level in a hierarchical tree.
13. The method of claim 1, wherein the displaying one or more processing relationship object representations on a display screen comprises displaying

values associated with an object name, an object description and an object number for a displayed processing relationship object.

- 5 14. The method of claim 13, wherein the object name identifies a unique name assigned to an object.
15. The method of claim 1, wherein the database is relational or object oriented.
- 10 16. The method of claim 1, wherein the selecting a first processing relationship object representation from one or more processing relationship object representations comprises positioning a cursor of an user input device above the first processing relationship object representation and clicking a button of the user input device.
- 15 17. The method of claim 1, wherein the preparing a processing relationship definition comprises creating or editing an object associated with each of the selected processing relationship object representation.
- 20 18. The method of claim 17, wherein the creating the object comprises identifying a unique object identifier and identifying values for the object properties.
19. The method of claim 1, wherein the preparing a processing relationship definition comprises identifying one or methods and one or more properties of an object associated with each of the selected processing relationship object representation.
- 25 20. The method of claim 1, wherein the processing relationship object representations comprises a class of objects representing a company or a business unit or a bank branch office or a regional bank or a credit card line or an issuer or an acquirer.

21. The method of claim 1, wherein the processing relationship object representations comprises an icon displayed on the display screen of the FSO computer system.
22. The method of claim 1, wherein a user of the FSO computer system executes a processing relationship configuration program to prepare the processing relationship definition.
23. The method of claim 1, wherein the user of FSO computer system executes a processing relationship configuration program to reconfigure and store in the database the processing relationship definition in response to changing business conditions.
24. A system for processing FSO transactions, the system comprising:  
a computer program;  
a computer system;  
wherein the computer program is executable on the computer system to execute:  
displaying one or more processing relationship object representations on a display screen in data communication with a Financial Service Organization (FSO) computer system comprising a database;  
selecting one or more processing relationship object representations from the displayed processing relationship object representations;  
preparing a processing relationship definition for each of the selected one or more processing relationship object representations; and  
storing each processing relationship definition in the database.
25. The system of claim 24, wherein each processing relationship definition stored in the database is configured for use in preparing a processing relationship value from an FSO transaction-related data in the FSO computer system.



26. The system of claim 25, wherein the processing relationship value is configured for use in identifying an FSO business entity as an owner of the FSO transaction-related data.
- 5 27. The system of claim 26, wherein the FSO business entity is a company or a business unit or a bank branch office or a regional bank or a credit card line or an issuer or an acquirer.
28. The system of claim 24, wherein the selecting one or more processing relationship  
10 object representations is performed by a user of the FSO computer system.
29. The system of claim 24, wherein the selecting one or more processing relationship object representations is programmable or executable by an expert system.
- 15 30. The system of claim 24, wherein the storing the processing relationship definition in the database comprises transferring the processing relationship definition to a report record definition stored in the database.
- 20 31. The system of claim 24, wherein the preparing the processing relationship definition comprises creating a highest level processing relationship object in a processing relationship structure, wherein the highest level processing relationship object represents an FSO.
- 25 32. The system of claim 31, wherein the processing relationship structure is expanded by inserting one or more processing relationship objects as descendents of the highest level processing relationship object.
33. The system of claim 31, wherein the processing relationship structure is edited by inserting or deleting one or more processing relationship objects, wherein each of

the one or more processing relationship objects are descendents of the highest level processing relationship object.

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34. The system of claim 24, wherein the displaying one or more processing relationship object representations on a display screen comprises displaying values associated with a sequence number and a level number.
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35. The system of claim 34, wherein the level number identifies a level in a hierarchical tree.
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36. The system of claim 24, wherein the displaying one or more processing relationship object representations on a display screen comprises displaying values associated with an object name, an object description and an object number for a displayed processing relationship object.
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37. The system of claim 36, wherein the object name identifies a unique name assigned to an object.
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38. The system of claim 24, wherein the database is relational or object oriented.
39. The system of claim 24, wherein the selecting a first processing relationship object representation from one or more processing relationship object representations comprises positioning a cursor of an user input device above the first processing relationship object representation and clicking a button of the user input device.
40. The system of claim 24, wherein the preparing a processing relationship definition comprises creating or editing an object associated with each of the selected processing relationship object representation.

41. The system of claim 40, wherein the creating the object comprises identifying a unique object identifier and identifying values for the object properties.

5 42. The system of claim 24, wherein the preparing a processing relationship definition comprises identifying one or methods and one or more properties of an object associated with each of the selected processing relationship object representation.

10 43. The system of claim 24, wherein processing relationship object representations comprises a class of objects representing a company or a business unit or a bank branch office or a regional bank or a credit card line or an issuer or an acquirer.

15 44. The system of claim 24, wherein the processing relationship object representations comprises an icon displayed on the display screen of the FSO computer system.

20 45. The system of claim 24, wherein a user of the FSO computer system executes a processing relationship configuration program to prepare the processing relationship definition.

25 46. The system of claim 24, wherein the user of FSO computer system executes a processing relationship configuration program to reconfigure and store in the database the processing relationship definition in response to changing business conditions.

47. The system of claim 24, wherein the computer system comprises a display device coupled to the computer system to display data.

48. The system of claim 47, wherein the display device is a display screen.

49. The system of claim 24, wherein the computer system comprises a user input device coupled to the computer system to enter data.

5 50. The system of claim 49, wherein the user input device is a mouse or a keyboard.

51. A carrier medium comprising program instructions, wherein the program instructions are executable by a computer system to implement:

10 displaying one or more processing relationship object representations on a display screen in data communication with a Financial Service Organization (FSO) computer system comprising a database;

selecting one or more processing relationship object representations from the displayed processing relationship object representations;

15 preparing a processing relationship definition for each of the selected one or more processing relationship object representations; and

storing each processing relationship definition in the database.

20 52. The carrier medium of claim 51, wherein each processing relationship definition stored in the database is configured for use in preparing a processing relationship value from an FSO transaction-related data in the FSO computer system.

53. The carrier medium of claim 52, wherein the processing relationship value is configured for use in identifying an FSO business entity as an owner of the FSO transaction-related data.

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54. The carrier medium of claim 53, wherein the FSO business entity is a company or a business unit or a bank branch office or a regional bank or a credit card line or an issuer or an acquirer.

55. The carrier medium of claim 51, wherein the selecting one or more processing relationship object representations is performed by a user of the FSO computer system.
- 5 56. The carrier medium of claim 51, wherein the selecting one or more processing relationship object representations is programmable or executable by an expert system.
- 10 57. The carrier medium of claim 51, wherein the storing the processing relationship definition in the database comprises transferring the processing relationship definition to a report record definition stored in the database.
- 15 58. The carrier medium of claim 51, wherein the preparing the processing relationship definition comprises creating a highest level processing relationship object in a processing relationship structure, wherein the highest level processing relationship object represents an FSO.
- 20 59. The carrier medium of claim 58, wherein the processing relationship structure is expanded by inserting one or more processing relationship objects as descendents of the highest level processing relationship object.
- 25 60. The carrier medium of claim 58, wherein the processing relationship structure is edited by inserting or deleting one or more processing relationship objects, wherein each of the one or more processing relationship objects are descendents of the highest level processing relationship object.
61. The carrier medium of claim 51, wherein the displaying one or more processing relationship object representations on a display screen comprises displaying values associated with a sequence number and a level number.

62. The carrier medium of claim 61, wherein the level number identifies a level in a hierarchical tree.

5 63. The carrier medium of claim 51, wherein the displaying one or more processing relationship object representations on a display screen comprises displaying values associated with an object name, an object description and an object number for a displayed processing relationship object.

10 64. The carrier medium of claim 63, wherein the object name identifies a unique name assigned to an object.

65. The carrier medium of claim 51, wherein the database is relational or object oriented.

15 66. The carrier medium of claim 51, wherein the selecting a first processing relationship object representation from one or more processing relationship object representations comprises positioning a cursor of an user input device above the first processing relationship object representation and clicking a button of the user  
20 input device.

67. The carrier medium of claim 51, wherein the preparing a processing relationship definition comprises creating or editing an object associated with each of the selected processing relationship object representation.

25 68. The carrier medium of claim 67, wherein the creating the object comprises identifying a unique object identifier and identifying values for the object properties.

69. The carrier medium of claim 51, wherein the preparing a processing relationship definition comprises identifying one or methods and one or more properties of an object associated with each of the selected processing relationship object representation.
- 5 70. The carrier medium of claim 51, wherein processing relationship object representations comprises a class of objects representing a company or a business unit or a bank branch office or a regional bank or a credit card line or an issuer or an acquirer.
- 10 71. The carrier medium of claim 51, wherein the processing relationship object representations comprises an icon displayed on the display screen of the FSO computer system.
- 15 72. The carrier medium of claim 51, wherein a user of the FSO computer system executes a processing relationship configuration program to prepare the processing relationship definition.
- 20 73. The carrier medium of claim 51, wherein the user of FSO computer system executes a processing relationship configuration program to reconfigure and store in the database the processing relationship definition in response to changing business conditions.
- 25 74. A method performed in a Financial Service Organization (FSO) computer system, the method comprising:  
defining a multilevel business organization structure for the FSO, wherein the multilevel business organization structure comprises one or more FSO business entities arranged in a hierarchical tree structure to represent a flow of information in the FSO;

defining one or more FSO objects to represent the one or more FSO business entities;

configuring a processing relationship structure comprising one or more processing relationship objects, wherein each of the one or more processing relationship objects is created from the one or more FSO objects and corresponds to an FSO business entity from the one or more FSO business entities;

storing the processing relationship structure in a FSO database.

75. The method of claim 74, wherein the processing relationship structure stored in the database is configured for use in preparing a processing relationship value from an FSO transaction-related data in the FSO computer system.
76. The method of claim 74, wherein the processing relationship structure is configured for use in identifying an FSO business entity as an owner of an FSO transaction-related data.
77. The method of claim 76, wherein the FSO business entity is a company or a business unit or a bank branch office or a regional bank or a credit card line or an issuer or an acquirer.
78. The method of claim 74, wherein the configuration of the processing relationship structure is performed by a user of the FSO computer system.
79. The method of claim 74, wherein the configuration of the processing relationship structure is programmable or executable by an expert system.
80. The method of claim 74, wherein storing the processing relationship structure in the database comprises transferring data associated with the processing relationship structure to a report record definition stored in the database.



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81. The method of claim 74, wherein configuring the processing relationship structure comprises creating a highest level processing relationship object in the processing relationship structure, wherein the highest level processing relationship object represents an FSO.
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82. The method of claim 81, wherein the processing relationship structure is expanded by inserting one or more processing relationship objects as descendents of the highest level processing relationship object.
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83. The method of claim 81, wherein the processing relationship structure is edited by inserting or deleting one or more processing relationship objects, wherein each of the one or more processing relationship objects are descendents of the highest level processing relationship object.
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84. The method of claim 74, wherein a first processing relationship object comprises a sequence number and a level number.
85. The method of claim 84, wherein the level number identifies a level in the processing relationship structure.
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86. The method of claim 84, wherein the first processing relationship object further comprises an object name, an object description and an object number.
87. The method of claim 86, wherein the object name identifies a unique name assigned to the first processing relationship object.
88. The method of claim 74, wherein the database is relational or object oriented.

89. The method of claim 74, wherein configuring the processing relationship structure comprises selecting a first processing relationship object representation from one or more processing relationship object representations comprises positioning a cursor of an user input device above the first processing relationship object representation and clicking a button of the user input device.
90. The method of claim 74, wherein configuring the processing relationship structure comprises creating or editing each of the one or more processing relationship objects.
91. The method of claim 90, wherein creating the processing relationship object comprises identifying a unique object identifier and identifying values for the processing relationship object properties.
92. The method of claim 74, wherein configuring the processing relationship structure comprises identifying one or methods and one or more properties for each of the one or more processing relationship objects.
93. The method of claim 74, wherein the processing relationship object comprises a class of objects representing a company or a business unit or a bank branch office or a regional bank or a credit card line or an issuer or an acquirer.
94. The method of claim 74, wherein the processing relationship object is represented as an icon displayed on the display screen of the FSO computer system.
95. The method of claim 74, wherein a user of the FSO computer system executes a processing relationship configuration program to configure the processing relationship structure.

96. The method of claim 74, wherein the user of FSO computer system executes a processing relationship configuration program to reconfigure and store in the database the processing relationship structure in response to changing business conditions.
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97. A system for processing FSO transactions, the system comprising:  
a computer program;  
a computer system;  
wherein the computer program is executable on the computer system to execute  
10 the method of:  
    defining a multilevel business organization structure for the FSO, wherein  
the multilevel business organization structure comprises one or more FSO  
business entities arranged in a hierarchical tree structure to represent a flow of  
information in the FSO;  
15      defining one or more FSO objects to represent the one or more FSO  
business entities;  
    configuring a processing relationship structure comprising one or more  
processing relationship objects, wherein each of the one or more processing  
relationship objects is created from the one or more FSO objects and corresponds  
20 to an FSO business entity from the one or more FSO business entities;  
    storing the processing relationship structure in a FSO database.
98. The system of claim 97, wherein the processing relationship structure stored in the  
database is configured for use in preparing a processing relationship value from  
25 an FSO transaction-related data in the FSO computer system.
99. The system of claim 97, wherein the processing relationship structure is  
configured for use in identifying an FSO business entity as an owner of an FSO  
transaction-related data.

100. The system of claim 99, wherein the FSO business entity is a company or a business unit or a bank branch office or a regional bank or a credit card line or an issuer or an acquirer.

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101. The system of claim 97, wherein the configuration of the processing relationship structure is performed by a user of the FSO computer system.

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102. The system of claim 97, wherein the configuration of the processing relationship structure is programmable or executable by an expert system.

103. The system of claim 97, wherein storing the processing relationship structure in the database comprises transferring data associated with the processing relationship structure to a report record definition stored in the database.

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104. The system of claim 97, wherein configuring the processing relationship structure comprises creating a highest level processing relationship object in the processing relationship structure, wherein the highest level processing relationship object represents an FSO.

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105. The system of claim 104, wherein the processing relationship structure is expanded by inserting one or more processing relationship objects as descendents of the highest level processing relationship object.

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106. The system of claim 104, wherein the processing relationship structure is edited by inserting or deleting one or more processing relationship objects, wherein each of the one or more processing relationship objects are descendents of the highest level processing relationship object.

107. The system of claim 97, wherein a first processing relationship object comprises a sequence number and a level number.
108. The system of claim 107, wherein the level number identifies a level in the processing relationship structure.
109. The system of claim 107, wherein the first processing relationship object further comprises an object name, an object description and an object number.
110. The system of claim 109, wherein the object name identifies a unique name assigned to the first processing relationship object.
111. The system of claim 97, wherein the database is relational or object oriented.
112. The system of claim 97, wherein configuring the processing relationship structure comprises selecting a first processing relationship object representation from one or more processing relationship object representations comprises positioning a cursor of an user input device above the first processing relationship object representation and clicking a button of the user input device.
113. The system of claim 97, wherein configuring the processing relationship structure comprises creating or editing each of the one or more processing relationship objects.
114. The system of claim 113, wherein creating the processing relationship object comprises identifying a unique object identifier and identifying values for the processing relationship object properties.

115. The system of claim 97, wherein configuring the processing relationship structure comprises identifying one or methods and one or more properties for each of the one or more processing relationship objects.

116. The system of claim 97, wherein the processing relationship object comprises a class of objects representing a company or a business unit or a bank branch office or a regional bank or a credit card line or an issuer or an acquirer.

117. The system of claim 97, wherein the processing relationship object is represented as an icon displayed on the display screen of the FSO computer system.

118. The system of claim 97, wherein a user of the FSO computer system executes a processing relationship configuration program to configure the processing relationship structure.

119. The system of claim 97, wherein the user of FSO computer system executes a processing relationship configuration program to reconfigure and store in the database the processing relationship structure in response to changing business conditions.

120. The system of claim 97, wherein the computer system comprises a display device coupled to the computer system to display data.

121. The system of claim 120, wherein the display device is a display screen.

122. The system of claim 97, wherein the computer system comprises a user input device coupled to the computer system to enter data.

123. The system of claim 122, wherein the user input device is a mouse or a keyboard.

124. A method performed in a Financial Service Organization (FSO) computer system, the method comprising:

5 defining a multilevel business organization structure for an FSO, wherein the multilevel business organization structure comprises one or more FSO business entities arranged in a hierarchical tree structure to represent a flow of information in the FSO, wherein each of the one or more FSO business entities is represented by an FSO object;

10 configuring one or more methods and properties associated with each of one or more FSO objects;

storing each of the one or more FSO objects in an FSO database.

125. The method of claim 124, wherein the multilevel business organization structure for the FSO stored in the database is configured for use in preparing a processing relationship value from an FSO transaction-related data in the FSO computer system.

126. The method of claim 124, wherein the multilevel business organization structure for an FSO is configured for use in identifying the FSO object as an owner of an FSO transaction-related data.

127. The method of claim 124, wherein each of the one or more FSO business entity is a company or a business unit or a bank branch office or a regional bank or a credit card line or an issuer or an acquirer.

128. The method of claim 124, wherein the definition of the multilevel business organization structure for the FSO is performed by a user of the FSO computer system.

129. The method of claim 124, wherein the definition of the multilevel business organization structure for the FSO is programmable or executable by an expert system.

5 130. The method of claim 124, wherein storing each of the one or more FSO objects in the FSO database comprises transferring data associated with the processing relationship structure to a report record definition stored in the FSO database.

10 131. The method of claim 124, wherein defining the multilevel business organization structure for the FSO comprises creating a highest level FSO object in the multilevel business organization structure, wherein the highest level FSO object represents the FSO.

15 132. The method of claim 131, wherein the multilevel business organization structure is expanded by inserting the one or more FSO objects as descendents of the highest level FSO object.

20 133. The method of claim 131, wherein the multilevel business organization structure is edited by inserting or deleting one or more FSO objects, wherein each of the one or more processing relationship objects are descendents of the highest level FSO object.

25 134. The method of claim 124, wherein a first FSO object comprises a sequence number and a level number.

135. The method of claim 134, wherein the level number identifies a level in the multilevel business organization structure.





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144. The method of claim 124, wherein the one or more FSO objects are represented as an icon displayed on the display screen of the FSO computer system.
145. The method of claim 124, wherein a user of the FSO computer system executes a multilevel business organization configuration program to configure the one or more FSO objects.
146. The method of claim 124, wherein the user of FSO computer system executes a multilevel business organization configuration program to reconfigure and store in the FSO database the one or more FSO objects in response to changing business conditions.

147. A method performed in a Financial Service Organization (FSO) computer system, the method comprising:

reading a processing relationship object from a database, wherein the processing relationship object describes a location of one or more processing parameter values in a first transaction-related data, wherein the one or more processing parameter values define an FSO entity in an FSO processing relationship tree structure stored in the database;

reading from the first transaction-related data the one or more processing parameter values described in the processing relationship object; and

transferring the one or more processing parameter values read from the first transaction-related data to a first memory.

148. The method of claim 1, wherein the processing relationship object and the FSO processing relationship tree structure are defined by a user of the FSO computer system during a configuration of the FSO computer system, and wherein the FSO computer system is configured to perform processing of transaction-related data.

149. The method of claim 1, wherein the first memory is a report record, and wherein the FSO computer system comprises a report record file comprising the report record.

150. The method of claim 3, wherein the database comprises a report record definition comprising the processing relationship object, and wherein the report record definition further comprises a report data definition describing a location of one or more data element values in the first transaction-related data.

151. The method of claim 3, wherein the FSO computer system further comprises a plurality of transaction-related data, wherein the processing relationship object describes a location of one or more processing parameter values in each of the

transaction-related data, wherein the first transaction-related data is one of the plurality of transaction-related data, and wherein the method further comprises:

- a) accessing a next transaction-related data from the plurality of transaction-related data;
- 5 b) creating a next report record in the report record file;
- c) reading from the next transaction-related data the one or more processing parameter values described in the processing relationship object;
- d) transferring the one or more processing parameter values read from the next transaction-related data to the next report record, and;
- 10 e) repeating a) through d) until each of the plurality of transaction-related data has been accessed;

wherein one report record is created in the report record file for each of the plurality of transaction-related data.

15 152. The method of claim 5, further comprising sorting the report records in the report record file on the one or more processing parameter values in the report records.

153. The method of claim 1, further comprising:

20 reading a report data definition from the database, wherein the report data definition describes a location of one or more data element values in the first transaction-related data;

reading from the first transaction-related data the one or more data element values described in the report data definition, and;

25 transferring the one or more data element values read from the first transaction-related data to the first memory.

154. The method of claim 6, wherein the first memory comprises a report record, wherein the FSO computer system comprises a report record file comprising the report record, wherein the FSO computer system further comprises a plurality of

transaction-related data, wherein the processing relationship object describes a location of one or more processing parameter values in each of the transaction-related data, wherein the first transaction-related data is one of the plurality of transaction-related data, and wherein the method further comprises:

- a) accessing a next transaction-related data from the plurality of transaction-related data;
- b) creating a next report record in the report record file;
- c) reading from the next transaction-related data the one or more processing parameter values described in the processing relationship object;
- d) transferring the one or more processing parameter values read from the next transaction-related data to the next report record;
- e) reading from the next transaction-related data the one or more data element values described in the report data definition;
- f) transferring the one or more data element values read from the next transaction-related data to the next report record; and
- g) repeating a) through f) until each of the plurality of transaction-related data has been accessed;

wherein one report record is created in the report record file for each of the plurality of transaction-related data.

155. The method of claim 8, further comprising:

reading a report record from the report record file; and  
transferring one or more of the data element values from the report record to an FSO report.

156. The method of claim 8, wherein the FSO report is a current FSO entity report configured for reporting the report records of the FSO entity defined by the one or

more processing parameter values of the report record, and wherein the method further comprises:

- h) reading a next report record from the report record file;
- i) comparing one or more processing parameter values from the next report record to the one or more processing parameter values that define the FSO entity of the current FSO entity report;
- j) creating a next FSO entity report in response to the one or more processing parameter values of the next report record not being equal to the one or more processing parameter values that define the FSO entity of the current FSO entity report, wherein the next FSO entity report is configured for reporting the report records of the FSO entity defined by the processing parameter values of the next report record.
- k) designating the next FSO entity report the current FSO entity report in response to creating the next FSO entity report;
- l) transferring one or more of the data element values from the next report record to the current FSO entity report, and;
- m) repeating h) through l) until all of the report records in the report record file have been read.

157. The method of claim 10, wherein the FSO processing relationship tree structure comprises one or more branches, wherein each of the one or more branches comprises one or more FSO entities defined by one or more processing parameter values, wherein one or more FSO entities on a branch of the tree structure report to a first FSO entity higher on the branch of the tree structure, the method further comprising:

sorting the report records in the report record file prior to reading the report record from the report record file, wherein sorting the report records comprises ordering the report records such that report records comprising processing parameter values for the one or more FSO entities below the first FSO

entity on the branch of the tree structure appear before report records for the first FSO entity in the report record file;

wherein j) further comprises:

creating a summary report in response to the one or more processing parameter values of the next report record not being equal to the one or more processing parameter values that define the FSO entity of the current FSO entity report and being equal to the one or more processing parameter values of the first FSO entity; and

wherein the summary report comprises a summary of one or more of the data element values from the report records of the one or more FSO entities below the first FSO entity on the branch of the tree structure.

158. A system for processing FSO transactions, the system comprising:

a computer program;

a computer system;

wherein the computer program is executable on the computer system to execute:

reading a processing relationship object from a database, wherein the processing relationship object describes a location of one or more processing parameter values in a first transaction-related data, wherein the one or more processing parameter values define an FSO entity in an FSO processing relationship tree structure stored in the database;

reading from the first transaction-related data the one or more processing parameter values described in the processing relationship object; and

transferring the one or more processing parameter values read from the first transaction-related data to a first memory.

159. The system of claim 12, wherein the processing relationship object and the FSO processing relationship tree structure are defined by a user of the FSO computer

system during a configuration of the FSO computer system, and wherein the FSO computer system is configured to perform processing of transaction-related data.

160. The system of claim 12, wherein the computer system comprises a display device coupled to the computer system to display data.
161. The system of claim 14, wherein the display device is a display screen.
162. The system of claim 12, wherein the computer system comprises a user input device coupled to the computer system to enter data.
163. The system of claim 16, wherein the user input device is a mouse or a keyboard.
164. The system of claim 12, wherein the computer system comprises an output device coupled to the computer system to output data.
165. The system of claim 18, wherein the output device is a printer or a disk.
166. The system of claim 12, wherein the first memory comprises a report record, and wherein the FSO computer system comprises a report record file comprising the report record.
167. The system of claim 20, wherein the database comprises a report record definition comprising the processing relationship object, and wherein the report record definition further comprises a report data definition describing a location of one or more data element values in the first transaction-related data.
168. The system of claim 20, wherein the FSO computer system further comprises a plurality of transaction-related data, wherein the processing relationship object



describes a location of one or more processing parameter values in each of the transaction-related data, wherein the first transaction-related data is one of the plurality of transaction-related data, and wherein the computer program is further executable on the computer system to execute:

- a) accessing a next transaction-related data from the plurality of transaction-related data;
- b) creating a next report record in the report record file;
- c) reading from the next transaction-related data the one or more processing parameter values described in the processing relationship object;
- d) transferring the one or more processing parameter values read from the next transaction-related data to the next report record, and;
- e) repeating a) through d) until each of the plurality of transaction-related data has been accessed,

wherein one report record is created in the report record file for each of the plurality of transaction-related data.

169. The system of claim 22, wherein the computer program is further executable on the computer system to execute: sorting the report records in the report record file on the one or more processing parameter values in the report records.

170. The system of claim 12, wherein the computer program is further executable on the computer system to execute:

reading a report data definition from the database, wherein the report data definition describes a location of one or more data element values in the first transaction-related data;

reading from the first transaction-related data the one or more data element values described in the report data definition; and

transferring the one or more data element values read from the first transaction-related data to the first memory.

- 5 171. The system of claim 24, wherein the first memory is a report record, wherein the FSO computer system comprises a report record file comprising the report record, wherein the FSO computer system further comprises a plurality of transaction-related data, wherein the processing relationship object describes a location of one or more processing parameter values in each of the transaction-related data, wherein the first transaction-related data is one of the plurality of transaction-related data, and wherein the computer program is further executable on the
- 10 computer system to execute:
- a) accessing a next transaction-related data from the plurality of transaction-related data;
  - b) creating a next report record in the report record file;
  - 15 c) reading from the next transaction-related data the one or more processing parameter values described in the processing relationship object;
  - d) transferring the one or more processing parameter values read from the next transaction-related data to the next report record;
  - 20 e) reading from the next transaction-related data the one or more data element values described in the report data definition;
  - f) transferring the one or more data element values read from the next transaction-related data to the next report record, and;
  - g) repeating a) through f) until each of the plurality of transaction-related
  - 25 data has been accessed;
- wherein one report record is created in the report record file for each of the plurality of transaction-related data.

172. The system of claim 25, wherein the computer program is further executable on the computer system to execute:
- reading a report record from the report record file; and
  - transferring one or more of the data element values from the report record to an FSO report.
173. The system of claim 26, wherein the FSO report comprises a current FSO entity report configured for reporting the report records of the FSO entity defined by the one or more processing parameter values of the report record, and wherein the computer program is further executable on the computer system to execute:
- h) reading a next report record from the report record file;
  - i) comparing one or more processing parameter values from the next report record to the one or more processing parameter values that define the FSO entity of the current FSO entity report;
  - j) creating a next FSO entity report in response to the one or more processing parameter values of the next report record not being equal to the one or more processing parameter values that define the FSO entity of the current FSO entity report, wherein the next FSO entity report is configured for reporting the report records of the FSO entity defined by the processing parameter values of the next report record.
  - k) designating the next FSO entity report the current FSO entity report in response to creating the next FSO entity report;
  - l) transferring one or more of the data element values from the next report record to the current FSO entity report; and
  - m) repeating h) through l) until all of the report records in the report record file have been read.
174. The system of claim 27, wherein the FSO processing relationship tree structure comprises one or more branches, wherein each of the one or more branches

comprises one or more FSO entities defined by one or more processing parameter values, wherein one or more FSO entities on a branch of the tree structure report to a first FSO entity higher on the branch of the tree structure, and wherein the computer program is further executable on the computer system to execute:

5            sorting the report records in the report record file prior to reading the report record from the report record file, wherein sorting the report records comprises ordering the report records such that report records comprising processing parameter values for the one or more FSO entities below the first FSO entity on the branch of the tree structure appear before report records for the first FSO entity in the report record file;

10            wherein j) further comprises:

             creating a summary report in response to the one or more processing parameter values of the next report record not being equal to the one or more processing parameter values that define the FSO entity of the current FSO entity report and being equal to the one or more processing parameter values of the first FSO entity; and

15            wherein the summary report comprises a summary of one or more of the data element values from the report records of the one or more FSO entities below the first FSO entity on the branch of the tree structure.

20            175. A carrier medium comprising program instructions, wherein the program instructions are executable by a computer system to implement:

             reading a processing relationship object from a database, wherein the processing relationship object describes a location of one or more processing parameter values in a first transaction-related data, wherein the one or more processing parameter values define an FSO entity in an FSO processing relationship tree structure stored in the database;

25            reading from the first transaction-related data the one or more processing parameter values described in the processing relationship object; and

transferring the one or more processing parameter values read from the first transaction-related data to a first memory.

- 5 176. The carrier medium of claim 29, wherein the processing relationship object and the FSO processing relationship tree structure are defined by a user of the FSO computer system during a configuration of the FSO computer system, and wherein the FSO computer system is configured to perform processing of transaction-related data.
- 10 177. The carrier medium of claim 29, wherein the first memory comprises a report record, and wherein the FSO computer system comprises a report record file comprising the report record.
- 15 178. The carrier medium of claim 31, wherein the database comprises a report record definition comprising the processing relationship object, and wherein the report record definition further comprises a report data definition describing a location of one or more data element values in the first transaction-related data.
- 20 179. The carrier medium of claim 31, wherein the FSO computer system further comprises a plurality of transaction-related data, wherein the processing relationship object describes a location of one or more processing parameter values in each of the transaction-related data, wherein the first transaction-related data is one of the plurality of transaction-related data, and wherein the program instructions are further executable by the computer system to implement:
- 25 a) accessing a next transaction-related data from the plurality of transaction-related data;
- b) creating a next report record in the report record file;

c) reading from the next transaction-related data the one or more processing parameter values described in the processing relationship object;

d) transferring the one or more processing parameter values read from the next transaction-related data to the next report record; and

e) repeating a) through d) until each of the plurality of transaction-related data has been accessed;

wherein one report record is created in the report record file for each of the plurality of transaction-related data.

180. The carrier medium of claim 33, further comprising sorting the report records in the report record file on the one or more processing parameter values in the report records.

181. The carrier medium of claim 29, further comprising:

reading a report data definition from the database, wherein the report data definition describes a location of one or more data element values in the first transaction-related data;

reading from the first transaction-related data the one or more data element values described in the report data definition; and

transferring the one or more data element values read from the first transaction-related data to the first memory.

182. The carrier medium of claim 35, wherein the first memory is a report record, wherein the FSO computer system comprises a report record file comprising the report record, wherein the FSO computer system further comprises a plurality of transaction-related data, wherein the processing relationship object describes a location of one or more processing parameter values in each of the transaction-related data, wherein the first transaction-related data is one of the plurality of

transaction-related data, and wherein the program instructions are further executable by the computer system to implement:

- a) accessing a next transaction-related data from the plurality of transaction-related data;
- b) creating a next report record in the report record file;
- c) reading from the next transaction-related data the one or more processing parameter values described in the processing relationship object;
- d) transferring the one or more processing parameter values read from the next transaction-related data to the next report record;
- e) reading from the next transaction-related data the one or more data element values described in the report data definition;
- f) transferring the one or more data element values read from the next transaction-related data to the next report record; and
- g) repeating a) through f) until each of the plurality of transaction-related data has been accessed;

wherein one report record is created in the report record file for each of the plurality of transaction-related data.

183. The carrier medium of claim 36, wherein the program instructions are further executable by the computer system to implement:

reading a report record from the report record file; and  
transferring one or more of the data element values from the report record to an FSO report.

184. The carrier medium of claim 37, wherein the FSO report is a current FSO entity report configured for reporting the report records of the FSO entity defined by the one or more processing parameter values of the report record, and wherein the program instructions are further executable by the computer system to implement:

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- h) reading a next report record from the report record file;
- i) comparing one or more processing parameter values from the next report record to the one or more processing parameter values that define the FSO entity of the current FSO entity report;
- 5 j) creating a next FSO entity report in response to the one or more processing parameter values of the next report record not being equal to the one or more processing parameter values that define the FSO entity of the current FSO entity report, wherein the next FSO entity report is configured for reporting the report records of the FSO entity defined by the processing parameter values of the next report record.
- 10 k) designating the next FSO entity report the current FSO entity report in response to creating the next FSO entity report;
- l) transferring one or more of the data element values from the next report record to the current FSO entity report; and
- 15 m) repeating h) through l) until all of the report records in the report record file have been read.

185. The carrier medium of claim 38, wherein the FSO processing relationship tree structure comprises one or more branches, wherein each of the one or more  
20 branches comprises one or more FSO entities defined by one or more processing parameter values, wherein one or more FSO entities on a branch of the tree structure report to a first FSO entity higher on the branch of the tree structure, and wherein the program instructions are further executable by the computer system to implement:

25 sorting the report records in the report record file prior to reading the report record from the report record file, wherein sorting the report records comprises ordering the report records such that report records comprising processing parameter values for the one or more FSO entities below the first FSO



entity on the branch of the tree structure appear before report records for the first FSO entity in the report record file;

wherein j) further comprises:

creating a summary report in response to the one or more processing  
parameter values of the next report record not being equal to the one or more  
processing parameter values that define the FSO entity of the current FSO entity  
report and being equal to the one or more processing parameter values of the first  
FSO entity; and

wherein the summary report comprises a summary of one or more of the  
data element values from the report records of the one or more FSO entities below  
the first FSO entity on the branch of the tree structure.

186. A method performed in a Financial Service Organization (FSO) computer system  
to generate an FSO report, the method comprising:

configuring a break key definition, wherein the break key  
definition comprises a break key identifier and a corresponding break key  
value associated with the break key identifier, wherein the break key  
definition is used to specify a format for the FSO report;

receiving an FSO data associated with an FSO transaction using a  
report data gathering program, wherein the report data gathering program  
uses the break key definition to read the corresponding break key value  
associated with the break key identifier from the FSO data;

storing the FSO data in a database;

sorting the FSO data stored in the database by using the break key  
definition to generate sorted FSO data;

storing the sorted FSO data in the database;

collating the sorted FSO data by using a report formatting program  
and the break key definition;

generating the FSO report consistent with the break key definition.

187. The method of claim 40, wherein the break key identifier comprises one or more data elements of a report record definition, wherein the one or more data elements comprises a sequence number and a break level number.
- 5 188. The method of claim 41, wherein the one or more data elements further comprises a database identifier and a description.
189. The method of claim 40, wherein configuring the break key definition comprises a user of the FSO computer system selecting the break key identifier from one or more properties of a report record definition using a display screen.
- 10 190. The method of claim 41, wherein the sequence number identifies the order the break key values appear in FSO report.
- 15 191. The method of claim 41, wherein the break level number identifies the order in which the break key identifier is used to sort and collate the FSO data.
192. The method of claim 42, wherein the database identifier is a processing relationship node identifier, wherein the processing relationship node identifier uniquely identifies a processing relationship node, wherein a processing relationship structure comprises the processing relationship node.
- 20 193. The method of claim 43, wherein the user of an FSO computer system reconfigures the break key definition to change format of the FSO report.
- 25 194. The method of claim 40, wherein the database is a relational or an object oriented database.



198. The system of claim 49, wherein configuring the break key definition comprises a user of the FSO computer system selecting the break key identifier from one or more properties of a report record definition using a display screen.
- 5 199. The system of claim 50, wherein the sequence number identifies the order the break key values appear in FSO report.
200. The system of claim 50, wherein the break level number identifies the order in which the break key identifier is used to sort and collate the FSO data.
- 10 201. The system of claim 51, wherein the database identifier comprises a processing relationship node identifier, wherein the processing relationship node identifier uniquely identifies a processing relationship node, wherein a processing relationship structure comprises the processing relationship node.
- 15 202. The system of claim 52, wherein the user of an FSO computer system reconfigures the break key definition to change format of the FSO report.
203. The system of claim 49, wherein the database is a relational or an object oriented database.
- 20 204. The system of claim 49, wherein the computer system comprises a display device coupled to the computer system to display data.
- 25 205. The system of claim 58, wherein the display device is a display screen.
206. The system of claim 49, wherein the computer system comprises a user input device coupled to the computer system to enter data.

207. The system of claim 60, wherein the user input device is a mouse or a keyboard.
208. The system of claim 49, wherein the computer system comprises an output device coupled to the computer system to output data.
- 5 209. The system of claim 62, wherein the output device is a printer or a disk.
210. A carrier medium comprising program instructions, wherein the program instructions are executable by a computer system to implement:
- 10 configuring a break key definition, wherein the break key definition comprises a break key identifier and a corresponding break key value associated with the break key identifier, wherein the break key definition is used to specify a format for the FSO report;
- 15 receiving an FSO data associated with an FSO transaction using a report data gathering program, wherein the report data gathering program uses the break key definition to read the corresponding break key value associated with the break key identifier from the FSO data;
- 20 storing the FSO data in a database;
- sorting the FSO data stored in the database by using the break key definition to generate sorted FSO data;
- storing the sorted FSO data in the database;
- collating the sorted FSO data by using a report formatting program and the break key definition;
- 25 generating the FSO report consistent with the break key definition.
211. The carrier medium of claim 64, wherein the break key identifier comprises one or more data elements of a report record definition, wherein the one or more data elements comprises a sequence number and a break level number.

212. The carrier medium of claim 65, wherein the one or more data elements further comprises a database identifier and a description.

213. The carrier medium of claim 64, wherein configuring the break key definition comprises a user of the FSO computer system selecting the break key identifier from one or more properties of a report record definition using a display screen.

214. The carrier medium of claim 65, wherein the sequence number identifies the order the break key values appear in FSO report.

215. The carrier medium of claim 65, wherein the break level number identifies the order in which the break key identifier is used to sort and collate the FSO data.

216. The carrier medium of claim 66, wherein the database identifier comprises a processing relationship node identifier, wherein the processing relationship node identifier uniquely identifies a processing relationship node, wherein a processing relationship structure comprises the processing relationship node.

217. The carrier medium of claim 67, wherein the user of an FSO computer system reconfigures the break key definition to change format of the FSO report.

218. The carrier medium of claim 64, wherein the database is a relational or an object oriented database.

219. A method performed in a Financial Service Organization (FSO) computer system, the method comprising:

configuring a report object, wherein the report object describes one or more methods and one or more properties associated with the report object, wherein the report object identifies a first report format and one or more data

sources, wherein each of the one or more data sources is identified by a unique identifier;

collecting a first report data from each of the one or more data sources identified by the unique identifier;

5 storing the first report data in a database.

10 220. The method of claim 73, wherein the report object is defined by a user of the FSO computer system during a configuration of the FSO computer system, and wherein the FSO computer system is configured to perform processing of transaction-related data.

221. The method of claim 73, wherein the report object continues to identify the first report format in response to modifying the one or more data sources.

15 222. The method of claim 73, wherein the first report format comprises a definition for a report page layout, wherein the report page layout identifies a location on a report page for the one or more data sources.

20 223. The method of claim 73, wherein the first report format comprises a definition for a report page function, wherein the report page function identifies one or more functions operable on the one or more data sources to produce an FSO report.

25 224. The method of claim 73, wherein the first report format comprises a definition for a report page content, wherein the report page content identifies one or more particular data sources selected from the one or more data sources to produce an FSO report.

225. The method of claim 73, wherein collecting the first report data is performed in response to a user of an FSO computer system executing a report program.

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226. The method of claim 73, wherein collecting the first report data is performed in response to invoking a method on the report object.

227. The method of claim 73, wherein configuring the report object comprises configuring a report record definition, wherein the report record definition further comprises a report data definition describing the data source.

228. The method of claim 73, wherein storing the first report data comprises transferring the first report data to a first report record, wherein a first report record file comprises the first report record.

229. The method of claim 73, wherein the one or more data sources describe one or more processing parameter values in a processing-related data.

230. The method of claim 73, wherein the database is relational or object-oriented.

231. The method of claim 73, wherein the first report data comprises one or more processing parameter values.

232. The method of claim 73, wherein the one or more data sources is defined by one or more processing relationship objects associated with a processing relationship structure.

233. A system for processing FSO transactions, the system comprising:  
a computer program;  
a computer system;  
wherein the computer program is executable on the computer system to execute:



configuring a report object, wherein the report object describes one or more methods and one or more properties associated with the report object, wherein the report object identifies a first report format and one or more data sources, wherein each of the one or more data sources is identified by a unique identifier;

collecting a first report data from each of the one or more data sources identified by the unique identifier;

storing the first report data in a database.

234. The system of claim 87, wherein the report object is defined by a user of the FSO computer system during a configuration of the FSO computer system, and wherein the FSO computer system is configured to perform processing of transaction-related data.

235. The system of claim 87, wherein the report object continues to identify the first report format in response to modifying the one or more data sources.

236. The system of claim 87, wherein the first report format comprises a definition for a report page layout, wherein the report page layout identifies a location on a report page for the one or more data sources.

237. The system of claim 87, wherein the first report format comprises a definition for a report page function, wherein the report page function identifies one or more functions operable on the one or more data sources to produce an FSO report.

238. The system of claim 87, wherein the first report format comprises a definition for a report page content, wherein the report page content identifies one or more particular data sources selected from the one or more data sources to produce an FSO report.

239. The system of claim 87, wherein the collecting the first report data is performed in response to a user of an FSO computer system executing a report program.

5 240. The system of claim 87, wherein the collecting the first report data is performed in response to invoking a method on the report object.

241. The system of claim 87, wherein the configuring the report object comprises configuring a report record definition, wherein the report record definition further comprises a report data definition describing the data source.

10 242. The system of claim 87, wherein the storing the first report data comprises transferring the first report data to a first report record, wherein a first report record file comprises the first report record.

15 243. The system of claim 87, wherein the one or more data sources describe one or more processing parameter values in a processing-related data.

244. The system of claim 87, wherein the database is relational or object-oriented.

20 245. The system of claim 87, wherein the first report data comprises one or more processing parameter values.

246. The system of claim 87, wherein the one or more data sources is defined by one or more processing relationship objects associated with a processing relationship structure.

25 247. The system of claim 87, wherein the computer system comprises a display device coupled to the computer system to display data.

248. The system of claim 101, wherein the display device is a display screen.

249. The system of claim 87, wherein the computer system comprises a user input device coupled to the computer system to enter data.

250. The system of claim 103, wherein the user input device is a mouse or a keyboard.

251. The system of claim 87, wherein the computer system comprises an output device coupled to the computer system to output data.

252. The system of claim 105, wherein the output device is a printer or a disk.

253. A carrier medium comprising program instructions, wherein the program instructions are executable by a computer system to implement:

configuring a report object, wherein the report object describes one or more methods and one or more properties associated with the report object, wherein the report object identifies a first report format and one or more data sources, wherein each of the one or more data sources is identified by a unique identifier;

collecting a first report data from each of the one or more data sources identified by the unique identifier;

storing the first report data in a database.

254. The carrier medium of claim 107, wherein the report object is defined by a user of the FSO computer system during a configuration of the FSO computer system, and wherein the FSO computer system is configured to perform processing of transaction-related data.

255. The carrier medium of claim 107, wherein the report object continues to identify the first report format in response to modifying the one or more data sources.
256. The carrier medium of claim 107, wherein the first report format comprises a definition for a report page layout, wherein the report page layout identifies a location on a report page for the one or more data sources.
257. The carrier medium of claim 107, wherein the first report format comprises a definition for a report page function, wherein the report page function identifies one or more functions operable on the one or more data sources to produce an FSO report.
258. The carrier medium of claim 107, wherein the first report format comprises a definition for a report page content, wherein the report page content identifies one or more particular data sources selected from the one or more data sources to produce an FSO report.
259. The carrier medium of claim 107, wherein collecting the first report data is performed in response to a user of an FSO computer system executing a report program.
260. The carrier medium of claim 107, wherein collecting the first report data is performed in response to invoking a method on the report object.
261. The carrier medium of claim 107, wherein configuring the report object comprises configuring a report record definition, wherein the report record definition further comprises a report data definition describing the data source.

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- wherein the first r

transferring the FSO report to an output device.

- 5 269. The method of claim 122, wherein the report object is defined by a user of the FSO computer system during a configuration of the FSO computer system, and wherein the FSO computer system is configured to perform processing of transaction-related data.
- 10 270. The method of claim 122, wherein the report object continues to identify the FSO report format is response to modifying one or more data sources used in the preparation of the one or more report records.
- 15 271. The method of claim 122, wherein the FSO report format comprises a definition for a report page layout, wherein the report page layout identifies a location on a report page for one or more data sources used in the preparation of the one or more report records.
- 20 272. The method of claim 125, wherein the one or more data sources describe one or more processing parameter values in transaction processing-related data.
273. The method of claim 125, wherein the one or more data sources is defined by one or more processing relationship objects associated with a processing relationship structure.
- 25 274. The method of claim 122, wherein the FSO report format comprises a definition for a report page function, wherein the report page function identifies one or more functions operable on one or more data sources used in the preparation of the one or more report records.

275. The method of claim 122, wherein the FSO report format comprises a definition for a report page content, wherein the report page content identifies one or more particular data sources selected from one or more data sources used in the preparation of the one or more report records.
- 5 276. The method of claim 122, wherein the accessing the report object is performed in response to a user of an FSO computer system executing a report program.
- 10 277. The method of claim 122, wherein the accessing the report object is performed in response to invoking a method on the report object.
- 15 278. The method of claim 122, wherein the accessing the report object comprises accessing a report record definition, wherein the report record definition further comprises a report data definition describing a data source.
- 20 279. The method of claim 122, wherein the preparing the FSO report data comprises sorting the one or more report records as identified by the format of the FSO report.
280. The method of claim 122, wherein the database is relational or object-oriented.
281. The method of claim 122, wherein the first report data comprises one or more processing parameter values.
- 25 282. A system for processing FSO transactions, the system comprising:  
a computer program;  
a computer system;  
wherein the computer program is executable on the computer system to execute the method of:

accessing a report object stored in a database, wherein the report object identifies a report format and describes a location of one or more report records corresponding to the report object, wherein each of the one or more report records is identified by a unique identifier;

5 preparing an FSO report by reading the one or more report records stored in the database, wherein a format of the FSO report is consistent with the report format identified by the report object;

transferring the FSO report to an output device.

10 283. The system of claim 136, wherein the report object is defined by a user of the FSO computer system during a configuration of the FSO computer system, and wherein the FSO computer system is configured to perform processing of transaction-related data.

15 284. The system of claim 136, wherein the report object continues to identify the FSO report format in response to modifying one or more data sources used in the preparation of the one or more report records.

20 285. The system of claim 136, wherein the FSO report format comprises a definition for a report page layout, wherein the report page layout identifies a location on a report page for one or more data sources used in the preparation of the one or more report records.

25 286. The system of claim 139, wherein the one or more data sources describe one or more processing parameter values in transaction processing-related data.

287. The system of claim 139, wherein the one or more data sources is defined by one or more processing relationship objects associated with a processing relationship structure.



- 5 288. The system of claim 136, wherein the FSO report format comprises a definition for a report page function, wherein the report page function identifies one or more functions operable on one or more data sources used in the preparation of the one or more report records.
- 10 289. The system of claim 136, wherein the FSO report format comprises a definition for a report page content, wherein the report page content identifies one or more particular data sources selected from one or more data sources used in the preparation of the one or more report records.
- 15 290. The system of claim 136, wherein the accessing the report object is performed in response to a user of an FSO computer system executing a report program.
- 20 291. The system of claim 136, wherein the accessing the report object is performed in response to invoking a method on the report object.
- 25 292. The system of claim 136, wherein the accessing the report object comprises accessing a report record definition, wherein the report record definition further comprises a report data definition describing a data source.
293. The system of claim 136, wherein the preparing the FSO report data comprises sorting the one or more report records as identified by the format of the FSO report.
294. The system of claim 136, wherein the database is relational or object-oriented.
295. The system of claim 136, wherein the first report data comprises one or more processing parameter values.

296. The system of claim 136, wherein the computer system comprises a display device coupled to the computer system to display data.
- 5 297. The system of claim 150, wherein the display device is a display screen.
298. The system of claim 136, wherein the computer system comprises a user input device coupled to the computer system to enter data.
- 10 299. The system of claim 152, wherein the user input device is a mouse or a keyboard.
300. The system of claim 136, wherein the computer system comprises an output device coupled to the computer system to output data.
- 15 301. The system of claim 154, wherein the output device is a printer or a disk.
302. A carrier medium comprising program instructions, wherein the program instructions are executable by a computer system to implement:
- 20       accessing a report object stored in a database, wherein the report object identifies a report format and describes a location of one or more report records corresponding to the report object, wherein each of the one or more report records is identified by a unique identifier;
- preparing an FSO report by reading the one or more report records stored in the database, wherein a format of the FSO report is consistent with the report
- 25       format identified by the report object;
- transferring the FSO report to an output device.
303. The carrier medium of claim 156, wherein the report object is defined by a user of the FSO computer system during a configuration of the FSO computer system,

and wherein the FSO computer system is configured to perform processing of transaction-related data.

- 5 304. The carrier medium of claim 156, wherein the report object continues to identify the FSO report format is response to modifying one or more data sources used in the preparation of the one or more report records.
- 10 305. The carrier medium of claim 156, wherein the FSO report format comprises a definition for a report page layout, wherein the report page layout identifies a location on a report page for one or more data sources used in the preparation of the one or more report records.
- 15 306. The carrier medium of claim 159, wherein the one or more data sources describe one or more processing parameter values in transaction processing-related data.
307. The carrier medium of claim 159, wherein the one or more data sources is defined by one or more processing relationship objects associated with a processing relationship structure.
- 20 308. The carrier medium of claim 159, wherein the FSO report format comprises a definition for a report page function, wherein the report page function identifies one or more functions operable on one or more data sources used in the preparation of the one or more report records.
- 25 309. The carrier medium of claim 156, wherein the FSO report format comprises a definition for a report page content, wherein the report page content identifies one or more particular data sources selected from one or more data sources used in the preparation of the one or more report records.

310. The carrier medium of claim 156, wherein the accessing the report object is performed in response to a user of an FSO computer system executing a report program.
- 5 311. The carrier medium of claim 156, wherein the accessing the report object is performed in response to invoking a method on the report object.
312. The carrier medium of claim 156, wherein the accessing the report object comprises accessing a report record definition, wherein the report record definition further comprises a report data definition describing a data source.
- 10 313. The carrier medium of claim 156, wherein the preparing the FSO report data comprises sorting the one or more report records as identified by the format of the FSO report.
- 15 314. The carrier medium of claim 156, wherein the database is relational or object-oriented.
315. The carrier medium of claim 156, wherein the first report data comprises one or more processing parameter values.
- 20 316. The carrier medium of claim 156, wherein the carrier medium is a memory medium.



322. The method of claim 4, wherein processing the first smart trigger comprises deleting the first identifier from the first smart trigger.

323. The method of claim 6, wherein first smart trigger stored in the first memory further comprises a first scheduled date, wherein the first scheduled date defines a date for processing the first smart trigger.

324. The method of claim 5, wherein the FSO computer system comprises a current date, and wherein the method further comprises:

comparing the scheduled date of the smart trigger to the current date;  
executing the first processing task and processing the first data contained in the first FSO related data set in response to the scheduled date being on or before the current date, and  
not executing the first processing task in response to the scheduled date being after the current date.

325. The method of claim 6, wherein the first memory comprises a smart trigger table wherein the smart trigger table comprises N rows each one of which comprises one smart trigger, the method further comprising:

- a) setting a counter X to one;
- b) incrementing X by one;
- c) reading an Xth smart trigger from the smart trigger table;
- d) comparing an Xth scheduled date of the Xth smart trigger to the current date;
- e) executing an Xth processing task and processing Xth data contained in an Xth data set in response to the Xth scheduled date of the Xth smart trigger being on or before the current date;
- f) not executing the Xth processing task in response to the Xth scheduled date of the Xth smart trigger being after the current date; and

g) repeating b) through f) until X equals N.

326. The method of claim 1, wherein the first smart trigger comprises one or more data fields, wherein data in the one or more data fields is passed to the first FSO related processing task in response to reading the smart trigger.

327. The method of claim 1, wherein the first FSO related data set comprises customer account record containing data relating to a customer of the FSO, wherein the first data identifier assigned to the first FSO related data set comprises a customer account number corresponding to the customer account record.

328. The method of claim 7, wherein the FSO computer system further comprises a smart trigger processing task for processing the first smart trigger, wherein the smart trigger processing task is configurable to be executed periodically, wherein the scheduling of the period of execution is configurable by a user of the FSO computer system.

329. The method of claim 6, wherein the method further comprises deleting the first processing task identifier in response to executing the first processing task.

330. A carrier medium comprising program instructions, wherein the program instructions are executable by a computer system to implement:

storing a first smart trigger in a first memory of the FSO computer system, wherein the first smart trigger comprises a first identifier that identifies the first FSO related processing task and a first data set identifier that identifies the first FSO related data set;  
reading the first smart trigger from the first memory; and

executing the first FSO related processing task and processing first data contained in the first FSO related data set in response to reading the first smart trigger from the first memory.

5        331.    The carrier medium of claim 14, wherein the storing the first smart trigger in the first memory is performed by an application program executing in the FSO computer system.

10       332.    The carrier medium of claim 14, wherein the storing the first smart trigger in the first memory is performed by a user of the FSO computer system.

15       333.    The carrier medium of claim 14, wherein the program instructions are further executable by the computer system to implement: processing the first smart trigger to generate a first processed smart trigger.

      334.    The carrier medium of claim 17, wherein the first smart trigger stored in the first memory further comprises a first scheduled date, and wherein the first smart trigger is processed on or before the first scheduled date.

20       335.    The carrier medium of claim 17, wherein the processing the first smart trigger comprises deleting the first identifier from the first smart trigger.

25       336.    The carrier medium of claim 19, wherein first smart trigger stored in the first memory further comprises a first scheduled date, wherein the first scheduled date defines a date for processing the first smart trigger.

      337.    The carrier medium of claim 18, wherein the FSO computer system comprises a current date, and wherein the program instructions are further executable by the computer system to implement:



comparing the scheduled date of the smart trigger to the current date;  
executing the first processing task and processing the first data contained  
in the first FSO related data set in response to the scheduled date being on  
or before the current date, and;  
not executing the first processing task in response to the scheduled date  
being after the current date.

338. The carrier medium of claim 19, wherein the first memory comprises a  
smart trigger table wherein the smart trigger table comprises N rows each one of  
which comprises one smart trigger, and wherein the program instructions are  
further executable by the computer system to implement:

- a) setting a counter X to one;
- b) incrementing X by one;
- c) reading an Xth smart trigger from the smart trigger table;
- d) comparing an Xth scheduled date of the Xth smart trigger to the  
current date;
- e) executing an Xth processing task and processing Xth data  
contained in an Xth data set in response to the Xth scheduled date of the  
Xth smart trigger being on or before the current date;
- f) not executing the Xth processing task in response to the Xth  
scheduled date of the Xth smart trigger being after the current date; and
- g) repeating b) through f) until X equals N.

339. The carrier medium of claim 14, wherein the first smart trigger comprises  
one or more data fields, wherein data in the one or more data fields is passed to  
the first FSO related processing task in response to reading the smart trigger.

340. The carrier medium of claim 14, wherein the first FSO related data set  
comprises customer account record containing data relating to a customer of the

FSO, wherein the first data identifier assigned to the first FSO related data set comprises a customer account number corresponding to the customer account record.

5        341.    The carrier medium of claim 20, wherein the FSO computer system further comprises a smart trigger processing task for processing the first smart trigger, wherein the smart trigger processing task is configurable to be executed periodically, wherein the scheduling of the period of execution is configurable by a user of the FSO computer system.

10       342.    The carrier medium of claim 17, wherein the program instructions are further executable by the computer system to implement: deleting the first processing task identifier in response to executing the first processing task.

15       343.    A system comprising:  
          a computer program;  
          an FSO computer system comprising a plurality of FSO related data sets including a first FSO related data set, and comprising a plurality of computer executable FSO related processing tasks including a first FSO related processing task;

20            wherein the computer program is executable on the computer system to execute:

25            storing a first smart trigger in a first memory of the FSO computer system, wherein the first smart trigger comprises a first identifier that identifies the first FSO related processing task and a first data set identifier that identifies the first FSO related data set;  
          reading the first smart trigger from the first memory; and

executing the first FSO related processing task and processing first data contained in the first FSO related data set in response to reading the first smart trigger from the first memory.

5        344.    The system of claim 27, wherein the storing the first smart trigger in the first memory is performed by an application program executing in the FSO computer system.

10       345.    The system of claim 27, wherein storing the first smart trigger in the first memory is performed by a user of the FSO computer system.

15       346.    The system of claim 27, wherein the computer program is further executable on the FSO computer system to execute: processing the first smart trigger to generate a first processed smart trigger.

20       347.    The system of claim 30, wherein the first smart trigger stored in the first memory further comprises a first scheduled date, wherein the first smart trigger is processed on or before the first scheduled date.

25       348.    The system of claim 30, wherein the processing the first smart trigger comprises deleting the first identifier from the first smart trigger.

30       349.    The system of claim 32, wherein first smart trigger stored in the first memory further comprises a first scheduled date, wherein the first scheduled date defines a date for processing the first smart trigger.

350.    The system of claim 31, wherein the FSO computer system comprises a current date, and wherein the computer program is further executable on the FSO computer system to execute:



wherein the first data identifier assigned to the first FSO related data set comprises a customer account number corresponding to the customer account record.

5           354.   The system of claim 33, wherein the FSO computer system further comprises a smart trigger processing task for processing the first smart trigger, wherein the smart trigger processing task is configurable to be executed periodically, wherein the scheduling of the period of execution is configurable by a user of the FSO computer system.

10           355.   The method of claim 32, wherein the computer program is further executable on the computer system to execute: deleting the first processing task identifier in response to executing the first processing task.

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356. A method comprising:

entering a key value in a first field of a template displayed on a display screen of a monitor coupled to an FSO computer system;

entering a database identifier in a second field of the template displayed on the display screen; and

storing the entered key value and the database identifier in a first memory coupled to the FSO computer system;

wherein the key value is configured to access the database identifier in the first memory, wherein the database identifier is configured to access a first database coupled to the FSO computer system.

357. The method of claim 1, wherein the first field of the template corresponds to a key definition, wherein the first field of the template comprises one or more key fields, wherein entering the key value comprises entering key field values in the one or more key fields.

358. The method of claim 2, further comprising defining the key definition, wherein the defining the key definition comprises:

displaying one or more data elements on the display screen;

selecting one or more data elements from the displayed one or more data elements, wherein the selected data elements correspond to the key fields in the key definition; and

storing the key definition in a second memory.

359. The method of claim 1, further comprising storing information that defines a relationship between the first database and a first database identifier.

360. The method of claim 1, wherein the first database is a relational database.

361. The method of claim 1, wherein the FSO computer system comprises a second database, wherein the second database comprises the first memory.

362. The method of claim 6, wherein the first memory comprises a table in the second database.

363. The method of claim 3, wherein the FSO computer system comprises a second database, wherein the second database comprises the second memory.

364. The method of claim 8, wherein the second memory comprises a table in the second database.

365. The method of claim 3, wherein a portion of the one or more data elements comprise monitoring parameters.

366. In a computer system configured to read processing data contained in any one of a plurality of databases, wherein the processing data is used in processing financial service organization (FSO) transaction related data, a method comprising:

- adding a first database to the plurality of databases;
- displaying a template on a display screen of a monitor in data communication with the computer system, wherein the template comprises fields configured to receive data entered by a user;
- entering a first key value in a first field of the template;

entering a first database identifier in a second field of the template, wherein the first key value corresponds to the first database identifier, wherein the first database identifier identifies the first database; storing the template entered first key value and corresponding first database identifier in a memory; wherein the computer system is configured to access a database of the plurality of databases, wherein the database is identified by a database identifier, wherein the computer system is configured to generate the first key value in response to the computer system receiving FSO related transaction data, wherein the computer system is configured to read the first database identifier stored in the memory in response to the computer system accessing the memory using the generated first key value, wherein computer system is configured to compare the first database identifier with the database identifier, and wherein the computer system is configured to access the first database in response to the computer system determining that the database identifier does not compare equally to the first database identifier read from the memory.

367. The method of claim 11, further comprising creating a key definition, wherein the computer system is configured to generate the first key value as a function of the key definition.

368. The method of claim 12, wherein each FSO transaction related data comprises a plurality of data elements, wherein the creating the key definition comprises:

displaying a list of data field representations on the monitor display,  
wherein each data field representation corresponds to a respective field of  
FSO transaction related data;



a user selecting a plurality of data field representations displayed on the monitor; and  
storing the selected data field representations in memory.

5           369. A carrier medium comprising program instructions, wherein the program instructions are executable by a computer system to implement:  
entering a key value in a first field of a template displayed on a display screen of a monitor coupled to an FSO computer system;  
entering a database identifier in a second field of the template displayed on  
10 the display screen; and  
storing the entered key value and the database identifier in a first memory coupled to the FSO computer system,  
wherein the key value is configured to access the database identifier in the first memory, wherein the database identifier is configured to access a first  
15 database coupled to the FSO computer system.

370. The carrier medium of claim 14, wherein the first field of the template corresponds to a key definition, wherein the first field of the template comprises one or more key fields, wherein entering the key value comprises  
20 entering key field values in the one or more key fields.

371. The carrier medium of claim 14, wherein the program instructions are further executable by the computer system to implement: defining the key definition, wherein defining the key definition comprises:  
25 displaying one or more data elements on the display screen;  
selecting one or more data elements from the displayed one or more data elements, wherein the selected data elements correspond to the key fields in the key definition; and  
storing the key definition in a second memory.

372. The carrier medium of claim 14, wherein the program instructions are further executable by the computer system to implement: storing information that defines a relationship between the first database and a first database identifier.

373. The carrier medium of claim 14, wherein the first database is a relational database.

374. The carrier medium of claim 14, wherein the FSO computer system comprises a second database, wherein the second database comprises the first memory.

375. The carrier medium of claim 19, wherein the first memory comprises a table in the second database.

376. The carrier medium of claim 17, wherein the FSO computer system comprises a second database, wherein the second database comprises the second memory.

377. The carrier medium of claim 21, wherein the second memory comprises a table in the second database.

378. The carrier medium of claim 16, wherein a portion of the one or more data elements comprise monitoring parameters.

379. A carrier medium comprising program instructions, wherein the program instructions are executable by a computer system to implement: adding a first database to the plurality of databases;

displaying a template on a display screen of a monitor in data  
communication with the computer system, wherein the template comprises  
fields configured to receive data entered by a user;  
entering a first key value in a first field of the template;  
5 entering a first database identifier in a second field of the template,  
wherein the first key value corresponds to the first database identifier,  
wherein the first database identifier identifies the first database;  
storing the template entered first key value and corresponding first  
database identifier in a memory;  
10 wherein the computer system is configured to access a database of the  
plurality of databases, wherein the database is identified by a database  
identifier, wherein the computer system is configured to generate the first  
key value in response to the computer system receiving FSO related  
transaction data, wherein the computer system is configured to read the  
15 first database identifier stored in the memory in response to the computer  
system accessing the memory using the generated first key value, wherein  
computer system is configured to compare the first database identifier with  
the database identifier, and wherein the computer system is configured to  
access the first database in response to the computer system determining  
20 that the database identifier does not compare equally to the first database  
identifier read from the memory.

380. The carrier medium of claim 24, wherein the program instructions  
are further executable by the computer system to implement: creating a key  
25 definition, wherein the computer system is configured to generate the first key  
value as a function of the key definition.



384. The system of claim 28, wherein the computer program is further executable on the FSO computer system to execute: defining the key definition, wherein the defining the key definition comprises:

5 displaying one or more data elements on the display screen;  
selecting one or more data elements from the displayed one or more data elements, wherein the selected data elements correspond to the key fields in the key definition; and  
10 storing the key definition in a second memory.

385. The system of claim 27, wherein the computer program is further executable on the FSO computer system to execute: storing information that defines a relationship between the first database and a first database identifier.

15 386. The system of claim 27, wherein the first database is a relational database.

387. The system of claim 27, wherein the FSO computer system comprises a second database, wherein the second database comprises the first  
20 memory.

388. The system of claim 32, wherein the first memory comprises a table in the second database.

25 389. The system of claim 29, wherein the FSO computer system comprises a second database, wherein the second database comprises the second memory.

390. The system of claim 34, wherein the second memory comprises a table in the second database.

391. The method of claim 29, wherein a portion of the one or more data elements comprise monitoring parameters.

392. A system comprising:  
a computer program;  
an computer system;  
wherein the computer program is executable on the computer system to execute:  
adding a first database to a plurality of databases;  
displaying a template on a display screen of a monitor in data communication with the computer system, wherein the template comprises fields configured to receive data entered by a user;  
entering a first key value in a first field of the template;  
entering a first database identifier in a second field of the template, wherein the first key value corresponds to the first database identifier, wherein the first database identifier identifies the first database;  
storing the template entered first key value and corresponding first database identifier in a memory;  
wherein the computer system is configured to access a database of the plurality of databases, wherein the database is identified by a database identifier, wherein the computer system is configured to generate the first key value in response to the computer system receiving FSO related transaction data, wherein the computer system is configured to read the first database identifier stored in the memory in response to the computer system accessing the memory using the generated first key value, wherein computer system is configured to compare the first database identifier with

the database identifier, and wherein the computer system is configured to access the first database in response to the computer system determining that the database identifier does not compare equally to the first database identifier read from the memory.

5  
393. The system of claim 37, wherein the computer program is further executable on the computer system to execute: creating a key definition, wherein the computer system is configured to generate the first key value as a function of the key definition.

10  
394. The system of claim 38, wherein each FSO transaction related data comprises a plurality of data elements, wherein the creating the key definition comprises:

15  
displaying a list of data field representations on the monitor display, wherein each data field representation corresponds to a respective field of FSO transaction related data;  
a user selecting a plurality of data field representations displayed on the monitor; and  
20  
storing the selected data field representations in memory.

395. A method performed in a Financial Service Organization (FSO) computer system, the method comprising:

building a first key value from one or more data element values stored in a first memory in the FSO computer system;

5 comparing the first key value to one or more key values stored in a second memory, wherein the second memory comprises one or more database identifier values each corresponding to a respective key value of the one or more key values;

10 writing into a third memory a first database identifier value of the one or more database identifier values stored in the second memory in response to finding a match between the first key value and one of the one or more key values stored in the second memory; and

accessing a first database in response to writing the first database identifier value into the third memory;

15 wherein the one or more key values and the one or more database identifier values stored in the second memory are entered by a user of the FSO computer system during a configuration of the FSO computer system.

20 396. The method of claim 1, wherein the FSO computer system comprises a plurality of databases, wherein the plurality of databases includes the first database, wherein each of the plurality of databases corresponds to a respective database identifier value, wherein one of the plurality of databases is an active database, wherein an active database identifier value corresponding to the active database is stored in a fourth memory, wherein the accessing the first database in response to writing the first database identifier value into the third memory comprises:

25 comparing the first database identifier value in the third memory to the active database identifier value in the fourth memory; and



setting the active database to the first database in response to the first database identifier value in the third memory not matching the active database identifier value in the fourth memory.

5 397. The method of claim 2, wherein setting the active database to the first database comprises setting the active database identifier value stored in the fourth memory to the first database identifier value from the third memory.

10 398. The method of claim 1, wherein the FSO computer system comprises a key definition comprising one or more data elements, wherein the first key value comprises one or more key fields, wherein the building the first key value from one or more data element values in the first memory in the FSO computer system comprises:

15 reading a first data element value from the first memory, wherein a location of the first data element value in the first memory is defined by a first data element from the key definition; and  
storing the first data element value in a first key field in the first key value in response to reading the first data element from the first memory.

20 399. A carrier medium comprising program instructions, wherein the program instructions are executable by a FSO computer system to implement:

25 building a first key value from one or more data element values stored in a first memory in the FSO computer system;  
comparing the first key value to one or more key values stored in a second memory, wherein the second memory comprises one or more database identifier values each corresponding to a respective key value of the one or more key values;  
writing into a third memory a first database identifier value of the one or more database identifier values stored in the second memory in response

to finding a match between the first key value and one of the one or more key values stored in the second memory; and  
accessing a first database in response to writing the first database identifier value into the third memory;

5 wherein the one or more key values and the one or more database identifier values stored in the second memory are entered by a user of the FSO computer system during a configuration of the FSO computer system.

10 400. The carrier medium of claim 5, wherein the FSO computer system comprises a plurality of databases, wherein the plurality of databases includes the first database, wherein each of the plurality of databases corresponds to a respective database identifier value, wherein one of the plurality of databases is an active database, wherein an active database identifier value corresponding to the active database is stored in a fourth memory, wherein the accessing the first database in response to writing the first database  
15 identifier value into the third memory comprises:

comparing the first database identifier value in the third memory to the active database identifier value in the fourth memory; and  
setting the active database to the first database in response to the first database identifier value in the third memory not matching the active  
20 database identifier value in the fourth memory.

401. The carrier medium of claim 5, wherein setting the active database to the first database comprises setting the active database identifier value stored in the fourth memory to the first database identifier value from the third memory.

25

402. The carrier medium of claim 5, wherein the FSO computer system comprises a key definition comprising one or more data elements, wherein the first key value comprises one or more key fields, wherein the building the first key value from one or more data element values in the first memory in the FSO computer system comprises:

reading a first data element value from the first memory, wherein a location of the first data element value in the first memory is defined by a first data element from the key definition; and  
storing the first data element value in a first key field in the first key value  
in response to reading the first data element from the first memory.

403. The carrier medium of claim 5, wherein the carrier medium is a memory medium.

404. A system for processing FSO transactions, the system comprising:

a computer program;

an FSO computer system;

wherein the computer program is executable on the FSO computer system to execute:

building a first key value from one or more data element values stored in a first memory in the FSO computer system;

comparing the first key value to one or more key values stored in a second memory, wherein the second memory comprises one or more database identifier values each corresponding to a respective key value of the one or more key values;

writing into a third memory a first database identifier value of the one or more database identifier values stored in the second memory in response to finding a match between the first key value and one of the one or more key values stored in the second memory; and

accessing a first database in response to writing the first database identifier value into the third memory;

wherein the one or more key values and the one or more database identifier values stored in the second memory are entered by a user of the FSO computer system during a configuration of the FSO computer system.

405. The system of claim 10, wherein the FSO computer system comprises a plurality of databases, wherein the plurality of databases includes the first database, wherein each of the plurality of databases corresponds to a respective database identifier value, wherein one of the plurality of databases is an active database, wherein an active database  
5 identifier value corresponding to the active database is stored in a fourth memory, wherein the accessing the first database in response to writing the first database identifier value into the third memory comprises:

10 comparing the first database identifier value in the third memory to the active database identifier value in the fourth memory; and  
setting the active database to the first database in response to the first database identifier value in the third memory not matching the active database identifier value in the fourth memory.

406. The system of claim 11, wherein setting the active database to the first database  
15 comprises setting the active database identifier value stored in the fourth memory to the first database identifier value from the third memory.

407. The system of claim 10, wherein the FSO computer system comprises a key definition comprising one or more data elements, wherein the first key value comprises  
20 one or more key fields, wherein the building the first key value from one or more data element values in the first memory in the FSO computer system comprises:  
reading a first data element value from the first memory, wherein a location of the first data element value in the first memory is defined by a first data element from the key definition; and  
25 storing the first data element value in a first key field in the first key value in response to reading the first data element from the first memory.

408. A method performed in a Financial Service Organization (FSO) computer system, the method comprising:

reading a key definition from a database, wherein the key definition describes a location of one or more data element values in a transaction-related data, wherein the key definition is identified during a configuration of the FSO computer system;

reading from the transaction-related data the one or more data element values described in the key definition; and

transferring the one or more data element values read from the transaction-related data to a processing key value.

409. The method of claim 1, further comprising:

comparing the processing key value to one or more key values in the database; and

reading a processing parameter value from the database in response to finding a match between the processing key value and one of the one or more key values stored in the database;

wherein the processing parameter value read from the database is configured for use in processing the transaction-related data in the FSO computer system.

410. The method of claim 2, wherein the one or more key values in the database are defined by the user of the FSO computer system during the configuration of the FSO computer system.

411. The method of claim 2, wherein the database further comprises a plurality of processing parameter tables, wherein each processing parameter table comprises one or more rows, wherein each row in the processing parameter table comprises one processing parameter value and one key value.



417. The method of claim 9, wherein the transferring the one or more data element values read from the transaction-related data to the processing key value further comprises:

transferring to the processing key value one of the one or more data element values read from the transaction-related data in response to a search mask field value indicating that the data element value from the transaction-related data is to be written to the processing key value; and transferring to the processing key value a low collating value in response to the search mask field value indicating that the low collating value is to be written to the processing key value.

418. The method of claim 9, wherein the search mask is defined by the user of the FSO computer system during the configuration of the FSO computer system.

419. A system for processing FSO transactions, the system comprising:  
a computer program;  
a computer system;  
wherein the computer program is executable on the computer system to execute:

reading a key definition from a database, wherein the key definition describes a location of one or more data element values in a transaction-related data, wherein the key definition is identified during a configuration of the FSO computer system;  
reading from the transaction-related data the one or more data element values described in the key definition; and  
transferring the one or more data element values read from the transaction-related data to a processing key value.

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420. The system of claim 12, wherein the computer program is further executable on the computer system to execute:

comparing the processing key value to one or more key values in the database, and;

5 reading a processing parameter value from the database in response to finding a match between the processing key value and one of the one or more key values stored in the database;

wherein the processing parameter value read from the database is configured for use in processing the transaction-related data in the FSO computer system.

421. The system of claim 13, wherein the one or more key values in the database are defined by the user of the FSO computer system during the configuration of the FSO computer system.

422. The system of claim 13, wherein the database further comprises a plurality of processing parameter tables, wherein each processing parameter table comprises one or more rows, wherein each row in the processing parameter table comprises one processing parameter value and one key value.

423. The system of claim 15, wherein the key definition is one of a plurality of key definitions in the database, wherein each of the plurality of key definitions in the database is associated with one of the plurality of processing parameter tables in the database, wherein the key definition further describes a data format of the key values in the one or more rows of the processing parameter table to which the key definition is associated.

424. The system of claim 16, wherein each of the key values in the processing parameter table comprises one or more key element values.



425. The system of claim 17, wherein each of the plurality of key definitions in the database comprises one or more key elements, wherein each of the one or more key elements describes a data format of one of the one or more key element values in the key values.

426. The system of claim 12, wherein the key definition comprises one or more key elements, wherein each of the one or more key elements describes a location and data format of one of the one or more data element values in the transaction-related data.

427. The system of claim 12, wherein the computer program is further executable on the computer system to execute:

reading a search mask from the database, wherein the search mask comprises one or more search mask fields, wherein each of the one or more search mask fields corresponds to one of the one or more data element values described in the key definition, and wherein each of the one or more search mask fields comprises a search mask field value.

428. The system of claim 20, wherein the transferring the one or more data element values read from the transaction-related data to the processing key value further comprises:

transferring to the processing key value one of the one or more data element values read from the transaction-related data in response to a search mask field value indicating that the data element value from the transaction-related data is to be written to the processing key value; and transferring to the processing key value a low collating value in response to the search mask field value indicating that the low collating value is to be written to the processing key value.

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429. The system of claim 20, wherein the search mask is defined by the user of the FSO computer system during the configuration of the FSO computer system.

5 430. A carrier medium comprising program instructions, wherein the program instructions are executable by a computer system to implement:

reading a key definition from a database, wherein the key definition describes a location of one or more data element values in a transaction-related data, wherein the key definition is identified during a configuration of the FSO computer system;  
10 reading from the transaction-related data the one or more data element values described in the key definition; and  
transferring the one or more data element values read from the transaction-related data to a processing key value.

15 431. The carrier medium of claim 23, wherein the program instructions are further executable by the computer system to implement:

comparing the processing key value to one or more key values in the database, and;

20 reading a processing parameter value from the database in response to finding a match between the processing key value and one of the one or more key values stored in the database;

wherein the processing parameter value read from the database is configured for use in processing the transaction-related data in the FSO computer system.  
25

432. The carrier medium of claim 24, wherein the one or more key values in the database are defined by the user of the FSO computer system during the configuration of the FSO computer system.

433. The carrier medium of claim 24, wherein the database further comprises a plurality of processing parameter tables, wherein each processing parameter table comprises one or more rows, wherein each row in the processing parameter table comprises one processing parameter value and one key value.

434. The carrier medium of claim 26, wherein the key definition is one of a plurality of key definitions in the database, wherein each of the plurality of key definitions in the database is associated with one of the plurality of processing parameter tables in the database, wherein the key definition further describes a data format of the key values in the one or more rows of the processing parameter table to which the key definition is associated.

435. The carrier medium of claim 27, wherein each of the key values in the processing parameter table comprises one or more key element values.

436. The carrier medium of claim 28, wherein each of the plurality of key definitions in the database comprises one or more key elements, wherein each of the one or more key elements describes a data format of one of the one or more key element values in the key values.

437. The carrier medium of claim 23, wherein the key definition comprises one or more key elements, wherein each of the one or more key elements describes a location and data format of one of the one or more data element values in the transaction-related data.

438. The carrier medium of claim 23, wherein the program instructions are further executable by the computer system to implement:

reading a search mask from the database, wherein the search mask comprises one or more search mask fields, wherein each of the one or more search mask fields corresponds to one of the one or more data element values described in the key definition, and wherein each of the one or more search mask fields comprises a search mask field value.

439. The carrier medium of claim 31, wherein the transferring the one or more data element values read from the transaction-related data to the processing key value further comprises:

transferring to the processing key value one of the one or more data element values read from the transaction-related data in response to a search mask field value indicating that the data element value from the transaction-related data is to be written to the processing key value, and; transferring to the processing key value a low collating value in response to the search mask field value indicating that the low collating value is to be written to the processing key value.

440. The carrier medium of claim 31, wherein the search mask is defined by the user of the FSO computer system during the configuration of the FSO computer system.

441. A method performed in a Financial Service Organization (FSO) computer system, the method comprising:

reading a key definition from a database in response to receiving a request for a processing parameter from a first program, wherein the key definition describes a location of one or more data element values in a transaction-related data;  
reading from the transaction-related data the one or more data element values described in the key definition;

reading a search mask from the database, wherein the search mask comprises one or more search mask fields, wherein each of the one or more search mask fields corresponds to one of the one or more data element values described in the key definition, and wherein each of the one or more search mask fields comprises a search mask field value; transferring to a processing key value one of the one or more data element values read from the transaction-related data in response to a search mask field value indicating that the data element value from the transaction-related data is to be written to the processing key value, and; transferring to the processing key value a low collating value in response to the search mask field value indicating that the low collating value is to be written to the processing key value; comparing the processing key value to one or more key values in the database; reading a processing parameter value from the database in response to finding a match between the processing key value and one of the one or more key values stored in the database, and; sending the processing parameter value to the first program; wherein the processing parameter value sent to the first program is configured for use in processing the transaction-related data in the FSO computer system.

442. The method of claim 34, wherein the key definition, search mask, and one or more key values in the database are defined by a user of the FSO computer system during a configuration of the FSO computer system.

443. A system for processing FSO transactions, the system comprising:  
a computer program;  
a computer system;

wherein the computer program is executable on the computer system to execute:

reading a key definition from a database in response to receiving a request for a processing parameter from a first program, wherein the key definition describes a location of one or more data element values in a transaction-related data;

reading from the transaction-related data the one or more data element values described in the key definition;

reading a search mask from the database, wherein the search mask comprises one or more search mask fields, wherein each of the one or more search mask fields corresponds to one of the one or more data element values described in the key definition, and wherein each of the one or more search mask fields comprises a search mask field value;

transferring to a processing key value one of the one or more data element values read from the transaction-related data in response to a search mask field value indicating that the data element value from the transaction-related data is to be written to the processing key value, and;

transferring to the processing key value a low collating value in response to the search mask field value indicating that the low collating value is to be written to the processing key value;

comparing the processing key value to one or more key values in the database;

reading a processing parameter value from the database in response to finding a match between the processing key value and one of the one or more key values stored in the database, and; sending the processing parameter value to the first program;

wherein the processing parameter value sent to the first program is configured for use in processing the transaction-related data in the FSO computer system.

5           444.       The system of claim 36, wherein the key definition, search mask, and one or more key values in the database are defined by a user of the FSO computer system during a configuration of the FSO computer system.

10           445.       A carrier medium comprising program instructions, wherein the program instructions are executable by a computer system to implement:

reading a key definition from a database in response to receiving a request for a processing parameter from a first program; wherein the key definition describes a location of one or more data element values in a transaction-related data;

15           reading from the transaction-related data the one or more data element values described in the key definition;

reading a search mask from the database, wherein the search mask comprises one or more search mask fields, wherein each of the one or more search mask fields corresponds to one of the one or more data element values described in the key definition, and wherein each of the

20           one or more search mask fields comprises a search mask field value; transferring to a processing key value one of the one or more data element values read from the transaction-related data in response to a search mask field value indicating that the data element value from the transaction-related data is to be written to the processing key value; and

25           transferring to the processing key value a low collating value in response to the search mask field value indicating that the low collating value is to be written to the processing key value;

comparing the processing key value to one or more key values in the database;

reading a processing parameter value from the database in response to finding a match between the processing key value and one of the one or more key values stored in the database; and

sending the processing parameter value to the first program;

wherein the processing parameter value sent to the first program is configured for use in processing the transaction-related data in the FSO computer system.

446. The carrier medium of claim 38, wherein the key definition, search mask, and one or more key values in the database are defined by a user of the FSO computer system during a configuration of the FSO computer system.

447. A method performed in a Financial Service Organization (FSO) computer system, the method comprising:

configuring a key definition, wherein the key definition describes a location of one or more data element values in a transaction-related data; storing the key definition in an FSO database;

receiving a request for a first data element value, wherein the request comprises first transaction data;

building a first key definition from the first transaction data;

searching the FSO database to find a match for the first key definition;

reading each of one or more data element values corresponding to the first key definition;

building a processing key value from the one or more data element values;

searching the FSO database to find a match for the processing key value;

reading a processing parameter value corresponding to the processing key value;



sending the processing parameter value as the first data element value in response to the request.

5 448. The method of claim 40, wherein the database comprises a plurality of processing parameter tables, wherein each processing parameter table comprises one or more rows, wherein each row in the processing parameter table comprises the processing key value and the corresponding processing parameter value.

10 449. The method of claim 41, wherein the key definition is one of a plurality of key definitions in the FSO database, wherein each of the plurality of key definitions in the FSO database is associated with one of the plurality of processing parameter tables in the FSO database, wherein the key definition further describes a data format of the processing key values in the one or more rows of the processing parameter table to which the key definition is associated.

15 450. The method of claim 40, further comprising:  
reading a search mask from the FSO database, wherein the search mask comprises one or more search mask fields, wherein each of the one or more search mask fields corresponds to one of the one or more data  
20 element values described in the key definition, and wherein each of the one or more search mask fields comprises a search mask field value.

25 451. The method of claim 43, wherein the building the processing key value from the one or more data element values further comprises:  
transferring to the processing key value one of the one or more data element values read from the transaction-related data in response to a search mask field value indicating that the data element value from the transaction-related data is to be written to the processing key value, and;

transferring to the processing key value a low collating value in response to the search mask field value indicating that the low collating value is to be written to the processing key value.

5 452. The method of claim 43, wherein the search mask is defined by the user of the FSO computer system during the configuration of the FSO computer system.

10 453. A system for processing FSO transactions, the system comprising:  
a computer program;  
a computer system;  
wherein the computer program is executable on the computer system to execute:

15 configuring a key definition, wherein the key definition describes a location of one or more data element values in a transaction-related data;  
storing the key definition in an FSO database;  
receiving a request for a first data element value, wherein the request comprises first transaction data;  
20 building a first key definition from the first transaction data;  
searching the FSO database to find a match for the first key definition;  
reading each of one or more data element values corresponding to the first key definition;  
25 building a processing key value from the one or more data element values;  
searching the FSO database to find a match for the processing key value;

reading a processing parameter value corresponding to the  
processing key value;  
sending the processing parameter value as the first data  
element value in response to the request.

5  
454. The system of claim 46, wherein the database comprises a plurality of  
processing parameter tables, wherein each processing parameter table comprises  
one or more rows, wherein each row in the processing parameter table comprises  
the processing key value and the corresponding processing parameter value.

10  
455. The system of claim 47, wherein the key definition is one of a plurality of  
key definitions in the FSO database, wherein each of the plurality of key  
definitions in the FSO database is associated with one of the plurality of  
processing parameter tables in the FSO database, wherein the key definition  
15 further describes a data format of the processing key values in the one or more  
rows of the processing parameter table to which the key definition is associated.

20  
456. The system of claim 46, wherein the computer program is further  
executable on the computer system to execute:

reading a search mask from the FSO database, wherein the search mask  
comprises one or more search mask fields, wherein each of the one or  
more search mask fields corresponds to one of the one or more data  
element values described in the key definition, and wherein each of the  
one or more search mask fields comprises a search mask field value.

25  
457. The system of claim 49, wherein the building the processing key value  
from the one or more data element values further comprises:

transferring to the processing key value one of the one or more data  
element values read from the transaction-related data in response to a

search mask field value indicating that the data element value from the transaction-related data is to be written to the processing key value; and transferring to the processing key value a low collating value in response to the search mask field value indicating that the low collating value is to be written to the processing key value.

458. The system of claim 49, wherein the search mask is defined by the user of the FSO computer system during the configuration of the FSO computer system.

459. A carrier medium comprising program instructions, wherein the program instructions are executable by a computer system to implement:

configuring a key definition, wherein the key definition describes a location of one or more data element values in a transaction-related data; storing the key definition in an FSO database; receiving a request for a first data element value, wherein the request comprises first transaction data; building a first key definition from the first transaction data; searching the FSO database to find a match for the first key definition; reading each of one or more data element values corresponding to the first key definition; building a processing key value from the one or more data element values; searching the FSO database to find a match for the processing key value; reading a processing parameter value corresponding to the processing key value; sending the processing parameter value as the first data element value in response to the request.

460. The carrier medium of claim 52, wherein the database comprises a plurality of processing parameter tables, wherein each processing parameter table

comprises one or more rows, wherein each row in the processing parameter table comprises the processing key value and the corresponding processing parameter value.

5 461. The carrier medium of claim 53, wherein the key definition is one of a plurality of key definitions in the FSO database, wherein each of the plurality of key definitions in the FSO database is associated with one of the plurality of processing parameter tables in the FSO database, wherein the key definition further describes a data format of the processing key values in the one or more  
10 rows of the processing parameter table to which the key definition is associated.

462. The carrier medium of claim 52, wherein the program instructions are further executable by the computer system to implement:  
reading a search mask from the FSO database, wherein the search mask  
15 comprises one or more search mask fields, wherein each of the one or more search mask fields corresponds to one of the one or more data element values described in the key definition, and wherein each of the one or more search mask fields comprises a search mask field value.

20 463. The carrier medium of claim 55, wherein the building the processing key value from the one or more data element values further comprises:  
transferring to the processing key value one of the one or more data element values read from the transaction-related data in response to a search mask field value indicating that the data element value from the  
25 transaction-related data is to be written to the processing key value, and;  
transferring to the processing key value a low collating value in response to the search mask field value indicating that the low collating value is to be written to the processing key value.

464. The carrier medium of claim 55, wherein the search mask is defined by the user of the FSO computer system during the configuration of the FSO computer system.

5 465. A method to build an access key to access a database table of a Financial Services Organization (FSO) computer system, the method comprising:

receiving a request to access a value from the database table, wherein the request comprises a transaction data associated with an FSO transaction; preparing the access key using the transaction data as an input, wherein  
10 the access key preparation is consistent with a key definition, wherein the key definition is identified during a configuration of the FSO computer system; and  
accessing the database table using the access key.

15 466. The method of claim 58, wherein the preparing the access key is performed by a key building program, and wherein the key building program comprises program instructions for preparing a key value.

20 467. The method of claim 58, wherein a user of the FSO computer system identifies the key definition.

468. The method of claim 58, wherein an expert system is executable to identify the key definition.

25 469. The method of claim 58, wherein the key definition identifies a particular arrangement of one or more data elements necessary to access a particular database table.

470. The method of claim 58, wherein the preparing the access key comprises:

reading the transaction data associated with the FSO transaction;  
selecting a plurality of data elements from the transaction data and an FSO  
database, wherein the selection of the plurality of data elements is  
consistent with the key definition;  
5 transferring the plurality of data elements to the access key.

471. A system for processing Financial Services Organization (FSO)  
transactions, the system comprising:

a computer program;

10 a computer system;

wherein the computer program is executable on the computer system to  
execute:

receiving a request to access a value from a database table, wherein  
the request comprises a transaction data associated with an FSO  
15 transaction;

preparing the access key using the transaction data as an input,  
wherein the access key preparation is consistent with a key  
definition, wherein the key definition is identified during a  
configuration of the computer system; and

20 accessing the database table using the access key.

472. The system of claim 64, wherein preparing the access key is performed by  
a key building program, wherein the key building program comprises program  
instructions for preparing a key value.

25 473. The system of claim 64, wherein a user of the computer system identifies  
the key definition.

474. The system of claim 64, wherein an expert system is executable to identify the key definition.

475. The system of claim 64, wherein the key definition identifies a particular arrangement of one or more data elements necessary to access a particular database table.

476. The system of claim 64, wherein the preparing the access key comprises:  
reading the transaction data associated with the FSO transaction;  
selecting a plurality of data elements from the transaction data and an FSO  
database, wherein the selection of the plurality of data elements is  
consistent with the key definition;  
transferring the plurality of data elements to the access key.

477. The system of claim 64, wherein the computer system comprises a display device coupled to the computer system to display data.

478. The system of claim 70, wherein the display device is a display screen.

479. The system of claim 64, wherein the computer system comprises a user input device coupled to the computer system to enter data.

480. The system of claim 72, wherein the user input device is a mouse or a keyboard.

481. A carrier medium comprising program instructions, wherein the program instructions are executable by a computer system to implement:



receiving a request to access a value from the database table, wherein the request comprises a transaction data associated with a Financial Services Organization (FSO) transaction;

preparing the access key using the transaction data as an input, wherein the access key preparation is consistent with a key definition, wherein the key definition is identified during a configuration of the computer system; and  
accessing the database table using the access key.

482. The carrier medium of claim 74, wherein the preparing the access key is performed by a key building program, wherein the key building program comprises program instructions for preparing a key value.

483. The carrier medium of claim 74, wherein a user of the computer system identifies the key definition.

484. The carrier medium of claim 74, wherein an expert system is executable to identify the key definition.

485. The carrier medium of claim 74, wherein the key definition identifies a particular arrangement of one or more data elements necessary to access a particular database table.

486. The carrier medium of claim 74, wherein the preparing the access key comprises:

- reading the transaction data associated with the FSO transaction;
- selecting a plurality of data elements from the transaction data and an FSO database, wherein the selection of the plurality of data elements is consistent with the key definition;

transferring the plurality of data elements to the access key.

487. The carrier medium of claim 74, wherein the carrier medium is a memory medium.

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488. A method of configuring a computer system for receiving and processing Financial Service Organization (FSO) transaction-related data, wherein each FSO transaction-related data is defined by a plurality of fields, each of which contains the FSO transaction-related data, the method comprising:

- 5 displaying a plurality of field identifiers on a display screen of a monitor, wherein the monitor is in data communication with the computer system, a first memory, and a second memory, wherein each of the displayed field identifiers identifies a respective field in each of the FSO transaction-related data;
- selecting a plurality of the displayed field identifiers;
- 10 storing the selected plurality of field identifiers in the first memory;
- wherein the computer system is configured to receive a first FSO transaction-related data, wherein the computer system is configured to read the selected plurality of field identifiers from the first memory in response to the computer system receiving the first FSO transaction-related data, wherein the computer system is configured to access
- 15 and read a first processing parameter from the second memory using FSO transaction-related data contained in fields of the first FSO transaction-related data that are identified by the selected plurality of field identifiers read from the first memory, and wherein the computer system is configured to process the first FSO transaction-related data and the first processing parameter.

- 20 489. The method of claim 1, further comprising:
- displaying a template on the monitor, wherein the template comprises a plurality of fields for receiving data values;
- entering a first data in a first field of the template;
- 25 entering the first processing parameter in a second field of the template;
- storing the first processing parameter and the first data in the second memory;
- wherein the computer system is configured to compare the first data stored in the second memory with the FSO transaction-related data contained in fields of the first FSO transaction-related data that are identified by the selected plurality of field identifiers read

from the first memory, and wherein the computer system is configured to access and read the first processing parameter if the first data compares equally to the FSO transaction-related data contained in fields of the first FSO transaction-related data that are identified by the selected plurality of field identifiers read from the first memory.

5

490. The method of claim 1, further comprising:

preparing a first processing key value from data contained in fields of the first FSO transaction-related data that are identified by the selected plurality of field identifiers read from the first memory, wherein the computer system is configured to access and read the first processing parameter from the second memory using the first processing key.

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491. The method of claim 3, wherein the first processing key value is defined by a plurality of fields which contain copies of data from the fields of the first FSO

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transaction-related data identified by the selected plurality of field identifiers read from the first memory.

492. The method of claim 4, further comprising:

entering mapping data into the computer system, wherein the mapping data maps each of the selected plurality of field identifiers to a respective field of the first processing key value, wherein the computer system is configured to place data from each of the fields of the first FSO transaction-related data identified by the selected plurality of field identifiers into a respective field of the processing key value in accordance with the mapping data.

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493. A method comprising:

displaying one or more key element representations on a display screen in data communication with a Financial Service Orgnaization (FSO) computer system

comprising a database, wherein the FSO computer system is configured to perform processing on FSO transaction-related data;

selecting one or more key element representations from the displayed key element representations;

5 preparing a key definition from the one or more key elements corresponding to the one or more selected key element representations in response to the user selecting the one or more key element representations; and

storing the key definition in the database;

wherein the key definition stored in the database is configured for use in

10 preparing a processing key value from a transaction-related data in the FSO computer system, wherein the processing key value is configured for use in locating a process control data set in the database in the FSO computer system, wherein the process control data set comprises one or more process control data values, and wherein the process control data set located using the processing key value is configured for use in processing  
15 the transaction-related data in the FSO computer system.

494. The method of claim 6, wherein the user selecting the key element representations, the preparing the key definition, and the storing the key definition occur during a configuration of the FSO computer system.

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495. The method of claim 6, wherein the preparing the key definition from the one or more key elements further comprises the user specifying a sequence of the key elements in the key definition.

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496. The method of claim 6, wherein the database comprises a plurality of data elements, and wherein the method further comprises:

the user selecting a plurality of key elements for use in key definitions from the plurality of data elements; and

the user selecting the one or more key elements for displaying on the display screen from the plurality of key elements.

497. The method of claim 6, further comprising:

5 the user defining one or more key values for the key definition;  
the user defining a processing parameter value for each of the key values for the key definition; and  
storing the one or more key values and processing parameter values in the database;

10 wherein locating the processing parameter value using the constructed processing key value comprises matching the constructed processing key value with one of the one or more key values stored in the database.

498. The method of claim 10, wherein each of the one or more key values is unique  
15 among the one or more key values for the key definition.

499. The method of claim 10, wherein the database comprises a process control data table associated with the key definition, wherein the process control data table comprises one or more rows, and wherein each row in the process control data table comprises one  
20 or more fields for storing one key value and one or more fields for storing the processing parameter value for the key value stored in the row.

500. The method of claim 10, wherein each of the one or more key values comprises one key element value for each of the one or more key elements in the key definition, and  
25 wherein the user defining the one or more key values for the key definition further comprises the user defining the one or more key element values for each of the one or more key values.

501. The method of claim 13, wherein the user defining the one or more key element values for each of the one or more key values comprises the user selecting a key element value for each of the one or more key elements in the key definition from a plurality of available key element values for the key element.

502. The method of claim 14, wherein the plurality of available key element values comprises a wildcard key element value.

503. The method of claim 6, wherein the database is relational or is object-oriented.

504. The method of claim 6, further comprising:  
the user defining one or more key masks for the key definition, wherein each key mask comprises one or more mask fields, wherein the one or more mask fields in the key mask correspond to the one or more key elements in the key definition;  
and  
storing the one or more key masks in the database.

505. The method of claim 16, wherein the user defining the one or more key masks further comprises the user selecting a mask field value from a plurality of mask field values for each of the one or more mask fields in each of the one or more key masks, and wherein the plurality of mask field values comprises an equal mask field value and a wildcard mask field value.

506. The method of claim 6, wherein the transaction-related data comprises a credit card transaction, and wherein the processing parameter value comprises one or more data values configured for processing the credit card transaction.

507. The method of claim 18, wherein the processing parameter value comprises one or more merchant transaction pricing values.

508. A system for processing Financial Service Organization (FSO) transactions, the system comprising:

a computer program;

a computer system;

wherein the computer program is executable on the computer system to execute:

displaying a plurality of field identifiers on a display screen of a monitor,

wherein the monitor is in data communication with the computer system, a

first memory, and a second memory, wherein each of the displayed field

identifiers identifies a respective field in each of FSO transaction-related data;

selecting a plurality of the displayed field identifiers;

storing the selected plurality of field identifiers in the first memory;

wherein the computer system is configured to receive a first FSO

transaction-related data, wherein the computer system is configured to read the

selected plurality of field identifiers from the first memory in response to the

computer system receiving the first FSO transaction-related data, wherein the

computer system is configured to access and read a first processing parameter

from the second memory using FSO transaction-related data contained in fields of

the first FSO transaction-related data that are identified by the selected plurality of

field identifiers read from the first memory, and wherein the computer system is

configured to process the first FSO transaction-related data and the first

processing parameter.

509. The system of claim 21, wherein the computer program is further executable on the computer system to execute:

displaying a template on the monitor, wherein the template comprises a plurality of fields for receiving data values;

entering a first data in a first field of the template;



entering the first processing parameter in a second field of the template;  
storing the first processing parameter and the first data in the second memory;  
wherein the computer system is configured to compare the first data stored in the  
second memory with the FSO transaction-related data contained in fields of the first FSO  
transaction-related data that are identified by the selected plurality of field identifiers read  
5 from the first memory, and wherein the computer system is configured to access and read  
the first processing parameter if the first data compares equally to the FSO transaction-  
related data contained in fields of the first FSO transaction-related data that are identified  
by the selected plurality of field identifiers read from the first memory.

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510. The system of claim 21, wherein the computer program is further executable on  
the computer system to execute:

preparing a first processing key value from data contained in fields of the first  
FSO transaction-related data that are identified by the selected plurality of field  
15 identifiers read from the first memory, wherein the computer system is configured to  
access and read the first processing parameter from the second memory using the first  
processing key.

511. The system of claim 23, wherein the first processing key value is defined by a  
20 plurality of fields which contain copies of data from the fields of the first FSO  
transaction-related data identified by the selected plurality of field identifiers read from  
the first memory.

512. The system of claim 24, wherein the computer program is further executable on  
25 the computer system to execute:

entering mapping data into the computer system, wherein the mapping data maps  
each of the selected plurality of field identifiers to a respective field of the first  
processing key value, wherein the computer system is configured to place data from each  
of the fields of the first FSO transaction-related data identified by the selected plurality of

field identifiers into a respective field of the processing key value in accordance with the mapping data.

513. A carrier medium comprising program instructions, wherein the program instructions are executable by a computer system to implement:

5 displaying a plurality of field identifiers on a display screen of a monitor, wherein the monitor is in data communication with the computer system, a first memory, and a second memory, wherein each of the displayed field identifiers identifies a respective field in each of FSO transaction-related data;

10 selecting a plurality of the displayed field identifiers;

storing the selected plurality of field identifiers in the first memory;

wherein the computer system is configured to receive a first FSO transaction-related data, wherein the computer system is configured to read the selected plurality of field identifiers from the first memory in response to the computer system receiving the

15 first FSO transaction-related data, wherein the computer system is configured to access and read a first processing parameter from the second memory using FSO transaction-related data contained in fields of the first FSO transaction-related data that are identified by the selected plurality of field identifiers read from the first memory, and wherein the computer system is configured to process the first FSO transaction-related data and the

20 first processing parameter.

514. The carrier medium of claim 26, wherein the program instructions are further executable by the computer system to implement:

25 displaying a template on the monitor, wherein the template comprises a plurality of fields for receiving data values;

entering a first data in a first field of the template;

entering the first processing parameter in a second field of the template;

storing the first processing parameter and the first data in the second memory;

wherein the computer system is configured to compare the first data stored in the second memory with the FSO transaction-related data contained in fields of the first FSO transaction-related data that are identified by the selected plurality of field identifiers read from the first memory, and wherein the computer system is configured to access and read the first processing parameter if the first data compares equally to the FSO transaction-related data contained in fields of the first FSO transaction-related data that are identified by the selected plurality of field identifiers read from the first memory.

515. The carrier medium of claim 26, wherein the program instructions are further executable by the computer system to implement:

the computer system preparing a first processing key value from data contained in fields of the first FSO transaction-related data that are identified by the selected plurality of field identifiers read from the first memory, wherein the computer system is configured to access and read the first processing parameter from the second memory using the first processing key.

516. The carrier medium of claim 28, wherein the first processing key value is defined by a plurality of fields which contain copies of data from the fields of the first FSO transaction-related data identified by the selected plurality of field identifiers read from the first memory.

517. The carrier medium of claim 29, wherein the program instructions are further executable by the computer system to implement:

entering mapping data into the computer system, wherein the mapping data maps each of the selected plurality of field identifiers to a respective field of the first processing key value, wherein the computer system is configured to place data from each of the fields of the first FSO transaction-related data identified by the selected plurality of field identifiers into a respective field of the processing key value in accordance with the mapping data.

518. A method comprising:

displaying one or more key element representations on a display screen in data communication with a Financial Service Organization (FSO) computer system

5 comprising a database, wherein the FSO computer system is configured to perform processing of FSO transaction-related data;

selecting one or more key element representation from the displayed key element representations;

10 preparing a key definition from the one or more key elements corresponding to the one or more selected key element representations in response to the user selecting the one or more key element representations; and

storing the key definition in the database;

wherein the key definition stored in the database is configured for use in preparing a processing key value from a transaction-related data in the FSO computer system, wherein the processing key value is configured for use in locating a process control data set in the database in the FSO computer system, wherein the process control data set comprises one or more process control data values, and wherein the process control data set located using the processing key value is configured for use in processing the transaction-related data in the FSO computer system.

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519. The method of claim 31, wherein the user selecting the key element representations, preparing the key definition, and storing the key definition occur during a configuration of the FSO computer system.

25 520. The method of claim 31, wherein preparing the key definition from the one or more key elements further comprises the user specifying a sequence of the key elements in the key definition.

521. The method of claim 31, wherein the database comprises a plurality of data elements, and wherein the method further comprises:

the user selecting a plurality of key elements for use in key definitions from the plurality of data elements; and

5 the user selecting the one or more key elements for displaying on the display screen from the plurality of key elements.

522. The method of claim 31, further comprising:

the user defining one or more key values for the key definition;

10 the user defining a processing parameter value for each of the key values for the key definition; and

storing the one or more key values and processing parameter values in the database;

15 wherein locating the processing parameter value using the constructed processing key value comprises matching the constructed processing key value with one of the one or more key values stored in the database.

523. The method of claim 35, wherein each of the one or more key values is unique among the one or more key values for the key definition.

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524. The method of claim 35, wherein the database comprises a process control data table associated with the key definition, wherein the process control data table comprises one or more rows, and wherein each row in the process control data table comprises one or more fields for storing one key value and one or more fields for storing the processing parameter value for the key value stored in the row.

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525. The method of claim 35, wherein each of the one or more key values comprises one key element value for each of the one or more key elements in the key definition, and wherein the user defining the one or more key values for the key definition further

comprises the user defining the one or more key element values for each of the one or more key values.

526. The method of claim 38, wherein the user defining the one or more key element values for each of the one or more key values comprises the user selecting a key element value for each of the one or more key elements in the key definition from a plurality of available key element values for the key element.

527. The method of claim 39, wherein the plurality of available key element values comprises a wildcard key element value.

528. The method of claim 31, further comprising:  
the user defining one or more key masks for the key definition, wherein each key mask comprises one or more mask fields, wherein the one or more mask fields in the key mask correspond to the one or more key elements in the key definition;  
and  
storing the one or more key masks in the database.

529. The method of claim 41, wherein the user defining the one or more key masks further comprises the user selecting a mask field value from a plurality of mask field values for each of the one or more mask fields in each of the one or more key masks, and wherein the plurality of mask field values comprises an equal mask field value and a wildcard mask field value.

530. The method of claim 31, wherein the transaction-related data comprises a credit card transaction, and wherein the processing parameter value comprises one or more data values configured for processing the credit card transaction.

531. The method of claim 43, wherein the processing parameter value comprises one or more merchant transaction pricing values.

532. A system for processing Financial Service Organization (FSO) transactions, the system comprising:

a computer program;

a computer system;

wherein the computer program is executable on the computer system to execute:

displaying one or more key element representations on a display screen in data communication with the computer system comprising a database,

wherein the computer system is configured to perform processing of FSO transaction-related data;

selecting one or more key element representation from the displayed key element representations;

preparing a key definition from the one or more key elements

corresponding to the one or more selected key element representations in

response to the user selecting the one or more key element representations; and

storing the key definition in the database;

wherein the key definition stored in the database is configured for use in preparing a processing key value from a transaction-related data in the computer system, wherein the processing key value is configured for use in locating a process control data set in the database in the computer system, wherein the process control data set comprises one or more process control data values, and wherein the process control data set located using the processing key value is configured for use in processing the transaction-related data in the computer system.

533. The system of claim 45, wherein the user selecting the key element representations, preparing the key definition, and storing the key definition occur during a configuration of the computer system.

5 534. The system of claim 45, wherein the preparing the key definition from the one or more key elements further comprises the user specifying a sequence of the key elements in the key definition.

535. The system of claim 45, wherein the database comprises a plurality of data  
10 elements, and wherein the computer program is further executable on the computer system to execute:

the user selecting a plurality of key elements for use in key definitions from the plurality of data elements; and

15 the user selecting the one or more key elements for displaying on the display screen from the plurality of key elements.

536. The system of claim 45, wherein the computer program is further executable on the computer system to execute:

defining one or more key values for the key definition;

20 defining a processing parameter value for each of the key values for the key definition; and

storing the one or more key values and processing parameter values in the database;

25 wherein locating the processing parameter value using the constructed processing key value comprises matching the constructed processing key value with one of the one or more key values stored in the database.

537. The system of claim 49, wherein each of the one or more key values is unique among the one or more key values for the key definition.



538. The system of claim 49, wherein the database comprises a process control data table associated with the key definition, wherein the process control data table comprises one or more rows, and wherein each row in the process control data table comprises one or more fields for storing one key value and one or more fields for storing the processing parameter value for the key value stored in the row.

539. The system of claim 49, wherein each of the one or more key values comprises one key element value for each of the one or more key elements in the key definition, and wherein the user defining the one or more key values for the key definition further comprises the user defining the one or more key element values for each of the one or more key values.

540. The system of claim 52, wherein the user defining the one or more key element values for each of the one or more key values comprises the user selecting a key element value for each of the one or more key elements in the key definition from a plurality of available key element values for the key element.

541. The system of claim 53, wherein the plurality of available key element values comprises a wildcard key element value.

542. The system of claim 49, wherein the computer program is further executable on the computer system to execute:

defining one or more key masks for the key definition, wherein each key mask comprises one or more mask fields, wherein the one or more mask fields in the key mask correspond to the one or more key elements in the key definition; and storing the one or more key masks in the database.

543. The system of claim 55, wherein the user defining the one or more key masks further comprises the user selecting a mask field value from a plurality of mask field values for each of the one or more mask fields in each of the one or more key masks, and wherein the plurality of mask field values comprises an equal mask field value and a wildcard mask field value.

544. The system of claim 49, wherein the transaction-related data comprises a credit card transaction, and wherein the processing parameter value comprises one or more data values configured for processing the credit card transaction.

545. The system of claim 57, wherein the processing parameter value comprises one or more merchant transaction pricing values.

546. The system of claim 49, wherein the computer system comprises a display device coupled to the computer system to display data.

547. The system of claim 59, wherein the display device is a display screen.

548. The system of claim 49, wherein the computer system comprises a user input device coupled to the computer system to enter data.

549. The system of claim 61, wherein the user input device is a mouse or a keyboard.

550. A carrier medium comprising program instructions, wherein the program instructions are executable by a computer system to implement:

displaying one or more key element representations on a display screen in data communication with a Financial Service Organization (FSO) computer system comprising a database, wherein the FSO computer system is configured to perform processing on FSO transaction-related data;

selecting one or more key element representations from the displayed key element representations;

preparing a key definition from the one or more key elements corresponding to the one or more selected key element representations in response to the user selecting the one or more key element representations; and

storing the key definition in the database;

wherein the key definition stored in the database is configured for use in preparing a processing key value from a transaction-related data in the FSO computer system, wherein the processing key value is configured for use in locating a process control data set in the database in the FSO computer system, wherein the process control data set comprises one or more process control data values, and wherein the process control data set located using the processing key value is configured for use in processing the transaction-related data in the FSO computer system.

551. The carrier medium of claim 63, wherein the user selecting the key element representations, the preparing the key definition, and the storing the key definition occur during a configuration of the FSO computer system.

552. The carrier medium of claim 63, wherein the preparing the key definition from the one or more key elements further comprises the user specifying a sequence of the key elements in the key definition.

553. The carrier medium of claim 63, wherein the database comprises a plurality of data elements, and wherein the program instructions are further executable by the computer system to implement:

the user selecting a plurality of key elements for use in key definitions from the plurality of data elements; and

the user selecting the one or more key elements for displaying on the display screen from the plurality of key elements.

554. The carrier medium of claim 63, wherein the program instructions are further executable by the computer system to implement:

5 defining one or more key values for the key definition;

defining a processing parameter value for each of the key values for the key definition; and

storing the one or more key values and processing parameter values in the database;

10 wherein locating the processing parameter value using the constructed processing key value comprises matching the constructed processing key value with one of the one or more key values stored in the database.

555. The carrier medium of claim 67, wherein each of the one or more key values is unique among the one or more key values for the key definition.

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556. The carrier medium of claim 67, wherein the database comprises a process control data table associated with the key definition, wherein the process control data table comprises one or more rows, and wherein each row in the process control data table comprises one or more fields for storing one key value and one or more fields for storing

20 the processing parameter value for the key value stored in the row.

557. The carrier medium of claim 67, wherein each of the one or more key values comprises one key element value for each of the one or more key elements in the key definition, and wherein the user defining the one or more key values for the key

25 definition further comprises the user defining the one or more key element values for each of the one or more key values.

558. The carrier medium of claim 70, wherein the user defining the one or more key element values for each of the one or more key values comprises the user selecting a key

element value for each of the one or more key elements in the key definition from a plurality of available key element values for the key element.

559. The carrier medium of claim 71, wherein the plurality of available key element values comprises a wildcard key element value.

560. The carrier medium of claim 63, wherein the program instructions are further executable by the computer system to implement:

10 defining one or more key masks for the key definition, wherein each key mask comprises one or more mask fields, wherein the one or more mask fields in the key mask correspond to the one or more key elements in the key definition; and storing the one or more key masks in the database.

561. The carrier medium of claim 73, wherein the user defining the one or more key masks further comprises the user selecting a mask field value from a plurality of mask field values for each of the one or more mask fields in each of the one or more key masks, and wherein the plurality of mask field values comprises an equal mask field value and a wildcard mask field value.

562. The carrier medium of claim 63, wherein the transaction-related data comprises a credit card transaction, and wherein the processing parameter value comprises one or more data values configured for processing the credit card transaction.

563. The carrier medium of claim 75, wherein the processing parameter value comprises one or more merchant transaction pricing values.

564. The carrier medium of claim 63, wherein the carrier medium is a memory medium.

565. A method comprising:

displaying on a display screen coupled to a Financial Service Organization (FSO) computer system a dictionary of data elements comprising one or more data elements associated with an FSO transaction-related data, wherein the FSO computer system processes the transaction-related data;

5 receiving a selection of one or more data elements selected from the dictionary of data elements, wherein the selected one or more data elements are arranged in a particular sequence to identify a user-defined key, wherein the user-defined key is configured during a configuration of the FSO computer system, wherein the user-defined key describes a location of one or more corresponding data element  
10 values stored in an FSO database; and  
storing the user-defined key in the FSO database.

566. The method of claim 78, wherein the displaying on the display screen, receiving the selection and storing the user-defined key occur during the configuration of the FSO  
15 computer system.

567. The method of claim 78, wherein the FSO database comprises the one or more data elements, and wherein the method further comprises:

20 selecting a plurality of key elements for use in the user-defined key from the one or more data elements; and  
selecting the plurality of key elements for displaying on the display screen from the plurality of key elements.

568. The method of claim 78, further comprising:

25 defining one or more key values for the user-defined key;  
defining a processing parameter value for each of the key values for the user-defined key; and  
storing the one or more key values and processing parameter values in the database;

wherein locating the processing parameter value using the constructed processing key value comprises matching the constructed processing key value with one of the one or more key values stored in the database.

5 569. A system for processing Financial Service Organization (FSO) transactions, the system comprising:

a computer program;

a computer system;

wherein the computer program is executable on the computer system to execute:

10 displaying on a display screen coupled to a Financial Service Organization (FSO) computer system a dictionary of data elements comprising one or more data elements associated with an FSO transaction-related data, wherein the computer system processes the transaction-related data;

15 receiving a selection of one or more data elements selected from the dictionary of data elements, wherein the selected one or more data elements are arranged in a particular sequence to identify a user-defined key, wherein the user-defined key is configured during a configuration of the computer system, wherein the user-defined key describes a location of one or more corresponding data  
20 element values stored in an FSO database; and  
storing the user-defined key in the FSO database.

25 570. The system of claim 82, wherein the displaying on a display screen and the receiving the selection occur during a configuration of the FSO computer system.

571. The system of claim 82, wherein the FSO database comprises the one or more data elements, and wherein the method further comprises:

selecting a plurality of key elements for use in the user-defined key from the one or more data elements; and  
selecting the plurality of key elements for displaying on the display screen from the plurality of key elements.

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572. The system of claim 82, wherein the computer program is further executable on the computer system to execute:

defining one or more key values for the user-defined key;

defining a processing parameter value for each of the key values for the user-defined key; and

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storing the one or more key values and processing parameter values in the database;

wherein locating the processing parameter value using the constructed processing key value comprises matching the constructed processing key value with one of the one or more key values stored in the database.

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573. The system of claim 82, wherein the computer system comprises a display device coupled to the computer system to display data.

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574. The system of claim 86, wherein the display device is a display screen.

575. The system of claim 82, wherein the computer system comprises a user input device coupled to the computer system to enter data.

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576. The system of claim 88, wherein the user input device is a mouse or a keyboard.

577. A carrier medium comprising program instructions, wherein the program instructions are executable by a computer system to implement a method of:



displaying on a display screen coupled to a Financial Service Organization (FSO) computer system a dictionary of data elements comprising one or more data elements associated with an FSO transaction-related data, wherein the computer system processes the transaction-related data;

5 receiving a selection of one or more data elements selected from the dictionary of data elements, wherein the selected one or more data elements are arranged in a particular sequence to identify a user-defined key, wherein the user-defined key is configured during a configuration of the computer system, wherein the user-defined key describes a location of one or more corresponding data element  
10 values stored in an FSO database; and  
storing the user-defined key in the FSO database.

578. The carrier medium of claim 90, wherein the displaying on a display screen and receiving the selection occur during a configuration of the computer system.

15 579. The carrier medium of claim 90, wherein the FSO database comprises the one or more data elements, and wherein the program instructions are further executable by the computer system to implement:

20 selecting a plurality of key elements for use in the user-defined key from the one or more data elements; and  
selecting the plurality of key elements for displaying on the display screen from the plurality of key elements.

25 580. The carrier medium of claim 90, wherein the program instructions are further executable by the computer system to implement:

defining one or more key values for the user-defined key;  
defining a processing parameter value for each of the key values for the user-defined key; and

wherein locating the processing parameter value using the constructed processing key value comprises matching the constructed processing key value with one of the one or more key values stored in the database.

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